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AI for New Devices And Technologies at the Edge

D5.3 Specifications of the use cases of the domain “Healthcare”

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Work Package	WP5 – Application Integration and Evaluation.		

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Abstract (Published Summary)

This document defines the use cases in the Healthcare domain, in the context of WP5 Task 5.4 of the ANDANTE project. Within Task 5.4 three clinical areas are distinguished:

- Multi-modal image processing and device tracking in medical X-ray images
- Ultrasound acquisition and processing for lung examinations
- Glucose monitoring

For each use case a description is provided explaining the user needs and the main steps towards use case implementation on the target neuromorphic hardware platform. Since in particular the SNN implementation of the SW application may influence the system performance in ways that are important for the end user, these performance criteria are included in each use case section.

This document summarizes the three healthcare use cases in Task 5.4 and provides a description about their implementation plan. Each use case starts with the collection and annotation of data which is needed to train the neural networks. Subsequently the networks will be implemented on their target HW platform after which the validation will take place. Performance characteristics which may be influenced by the SNN implementation have been identified and will be carefully analyzed in the validation stage.