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**Email of Convenor:** igor.curcio@nokia.com

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# Introduction

In response to questions about evaluation framework for the CfP for incremental NN compression (WG02N0017) the following clarifications are provided.

# Clarifications

## General

* The definitions for the use cases define a minimum result set with fixed configurations to be provided. Additional results with different configurations may be submitted.
* The base models are assumed to be original uncompressed models. The compression/transmission of the base model is out of scope of the CfP. The bitrate needed for transmitting the initial network is not considered.
* No external data (other than the datasets listed in the evaluation framework document) shall be used for training. At least one complete results set without data augmentation shall be submitted, additional results may use data augmentation.
* Signalling the change of topology is in scope, however, this only happens or the first update of the base model.

## Use case 10

* Training shall be done for at least 12 rounds for one epoch each with the following parameters:
  + Optimizer: Adam
  + Loss function: Cross-Entropy
  + Learning rate: 1e-5
* A single training client is assumed.
* All metrics shall be reported for the models after each round.
* The base model used for calculating the compression ratio is the pretrained model from the Pytorch model zoo.

## Use case 14A

* The algorithm listed in section 5.9.1 and the hyperparameters listed there shall be applied to all experiments to ensure comparability of submission.
* The number of training rounds shall be set to 12.
* All metrics shall be reported for the models after each round.
* Clarifications to Table 3:
  + “trainable true” means that the weights in the feature extraction (VGG16) part of the model may be updated.
  + “trainable false” means that the weights in the feature extraction (VGG16) part of the model may be not be updated, but only those in the two FC layers may be updated.
* Clarification to calculation of compression ratio (text below Table 3). The rates shall be reported for the compression of the result models with respect to two different base models:
  + Model including the feature extraction (VGG16 part) and the 2 FC layers, pretrained on training data A. This means that the update to be compressed includes only weight updates.
  + VGG-16 model pretrained on ImageNet. In this case, the update to be compressed includes (i) adding the 2 FC layers with their weights and (ii) weight updates for the feature extraction (VGG16) part of the model.