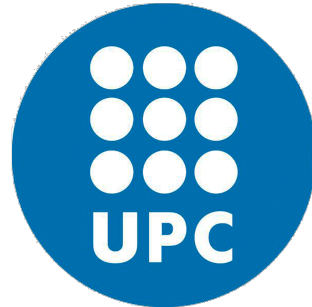

Edge Computing infrastructure for 5G networks: a placement optimization solution

By

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Errata List

PhD Thesis: “Edge Computing infrastructure for 5G networks: a placement optimization solution”

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1. Page 17:

- The caption in Figure 2.1 should be: “Edge Computing deployment diagram.”
- Sentence: “*However, the EC network can be considered to be flat, as a sole tier of edge nodes is assumed to be placed between the traffic aggregation points and the remote cloud infrastructure. Figure 2.1) depicts a simplified reference architecture for EC where each EN is assumed to converge storage, networking and computing resources.*”

Should be replaced with: “*However, the EC network can be considered to be flat, as a sole tier of edge nodes is assumed to be placed between the traffic aggregation points and the remote cloud infrastructure (see Figure 2.1).*”

2. Page 57:

- Pseudo-code **Algorithm 1**, line 26: $n_s \leftarrow \text{decrease}(n_s, \alpha_f)$, should be replaced with:

$$\begin{aligned} n_s &\leftarrow \text{decrease}(n_s, \alpha_f) // \text{update num. neighbors} \\ b_{se} &\leftarrow b_s // \text{update overall best solution} \end{aligned}$$

3. Page 79:

- Equation 5.4 should be replaced with:

$$\theta_i = \tau \cdot \sum_{\forall t \in T} \mu_i^t \cdot M_t + \sigma \cdot \sum_{\forall t \in T} \kappa_i^t \cdot K_t \quad \forall i \in N$$

- Equation 5.5 should be replaced with:

$$\iota_i^t = \sum_{\forall (i,j) \in L} \sigma \cdot \gamma_{ij}^{te} \cdot K_t \quad \forall e, t \in N, T$$

- Equation 5.6 should be replaced with:

$$\chi_i = \frac{\sum_{\forall t \in T} \mu_i^t \cdot M_t}{C_{c_i}} + \frac{\sum_{\forall t \in T} \kappa_i^t \cdot K_t}{C_{n_i}} \quad \forall i \in N$$

- Within the second paragraph, the following text: “*the processing capacity deployed at i , calculated by subtracting the maximum allowable processing capacity (C_{c_i}) and the capacity required to satisfy the processing demands of the TGs served by the EN at i* ”

Should be replaced with: “*the processing capacity deployed at i , calculated considering the capacity required to satisfy the processing demands of the TGs served by the EN at i and the demand routed through this EN*”

4. Page 87:

- Pseudo-code **Greedy EN (EN-G)**, a new line should be inserted within `randomize(t.candidates)` for $e \in t.candidates$, as shown below:

```
randomize(t.candidates)
for e ∈ t.candidates
```

5. Page 98:

- Within the second paragraph, the following text: “*solving the joint placement*”

Should be replaced with: “*solving both the placement*”

6. Page 112:

- Within the second paragraph, the following text: “*Furthermore, the joint solution to both EN and UPF placement*”

Should be replaced with: “*Furthermore, the combined solution to both EN and UPF placement*”

- Within the second paragraph, the following text: “*Such joint optimization is possible due to*”

Should be replaced with: “*Such sequential optimization is possible due to*”

- Within the third paragraph, the following text: “*a framework proposal designed to jointly solve the EN and UPF placement*”

Should be replaced with: “*a framework proposal designed to solve both the EN and UPF placement*”

7. Page 113:

- The caption in Figure 6.9 should be: “*Figure 6.9: EdgeON extended version solving both the EN and UPF placement problem.*”

8. Page 116:

- The caption in Figure 6.11 should be: “*Figure 6.11: EA performance on the UPF/EN placement problem.*”
- The caption in Figure 6.12 should be: “*Figure 6.12: HSA performance on the UPF/EN placement problem.*”

9. Page 125:

- Within the third paragraph, the following text: “*a solution based on EdgeON aiming at jointly optimizing the placement of both ENs and UPFs*”

Should be replaced with: “*a solution based on EdgeON aiming at sequentially optimizing the placement of both ENs and UPFs*”