

Exercise 1 – (12 points) The Ministry of Justice of a small European country is planning an international bid for a platform to manage the onboarding and release of inmates in its prison system. The onboarding process includes the following activities

1. Ascertaining the incoming inmate's personal identity and the duration of the detention (according to one or more court orders)
2. Assigning the inmate a unique code
3. Storing the inmate personal belonging in the prison's safe
4. Assigning the inmate to a cell
5. Updating the inmate list used by external companies providing food and laundry services

(a) Show the BPMN diagram of the process. Make all necessary assumptions.
(b) Provide the skeleton of the process BPEL diagram, describing the partner services.
(c) Discuss possible exceptions and how you would handle them-

Exercise 2 (12 points)

- (a) Discuss informally all the activities that you would include in the inmate release process.
- (b) Discuss how the service interfaces you proposed for Exercise 1 could be extended to support both processes.
- (c) Provide a BPMN diagram for the release process.
- (d) Discuss possible inconsistencies resulting from the execution of the two processes (e.g., what would happen if someone is released twice without the execution of an onboarding process in between?)

Exercise 3 (6 points)

Draw and discuss a value model involving the Ministry, the prisons and the external companies supplying food and laundry services. What other operators could be added to this model?