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EUROSISTEMA

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Task Force on TARGET Instant Payments Settlement

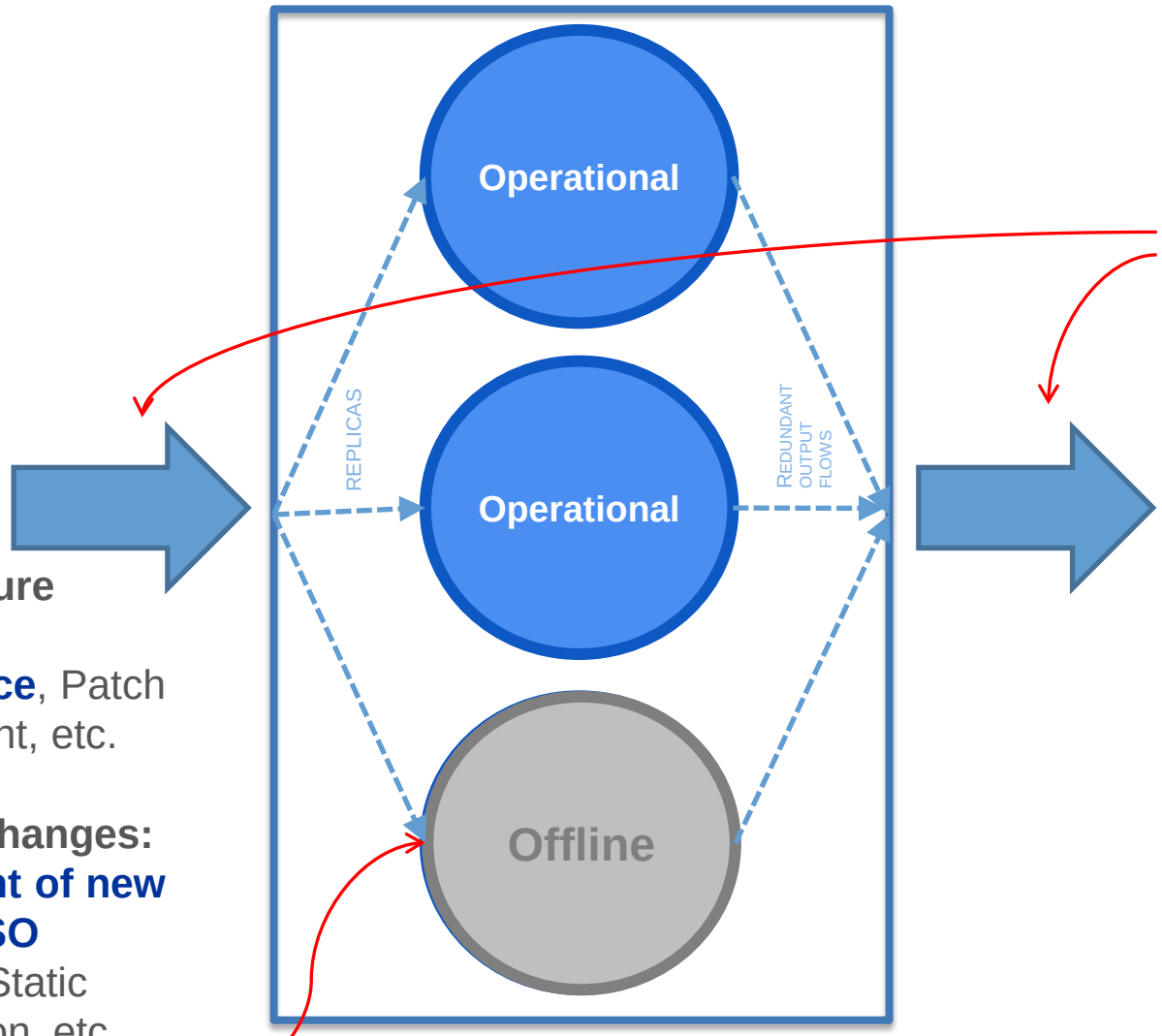
5th Task Force Meeting
9 March 2017

Deployment management approach for infrastructure/software changes to comply with no downtime

TIPS availability

- TIPS will operate 24/7/365, without the need for any maintenance window or daily interruption of the service.
- The following slides explain how TIPS should manage any potential infrastructure or software changes (including ISO release) without stopping the service. The process applies:
  - Into TIPS server
  - Within TIPS community
    - E.g.: change of ISO 20022 standard.

Change management process – Step 1



Backward compatibility or Stability: it is a precondition

- **Infrastructure changes: Maintenance**, Patch management, etc.
- **Software changes: Deployment of new versions ISO standard,** Static data injection, etc.

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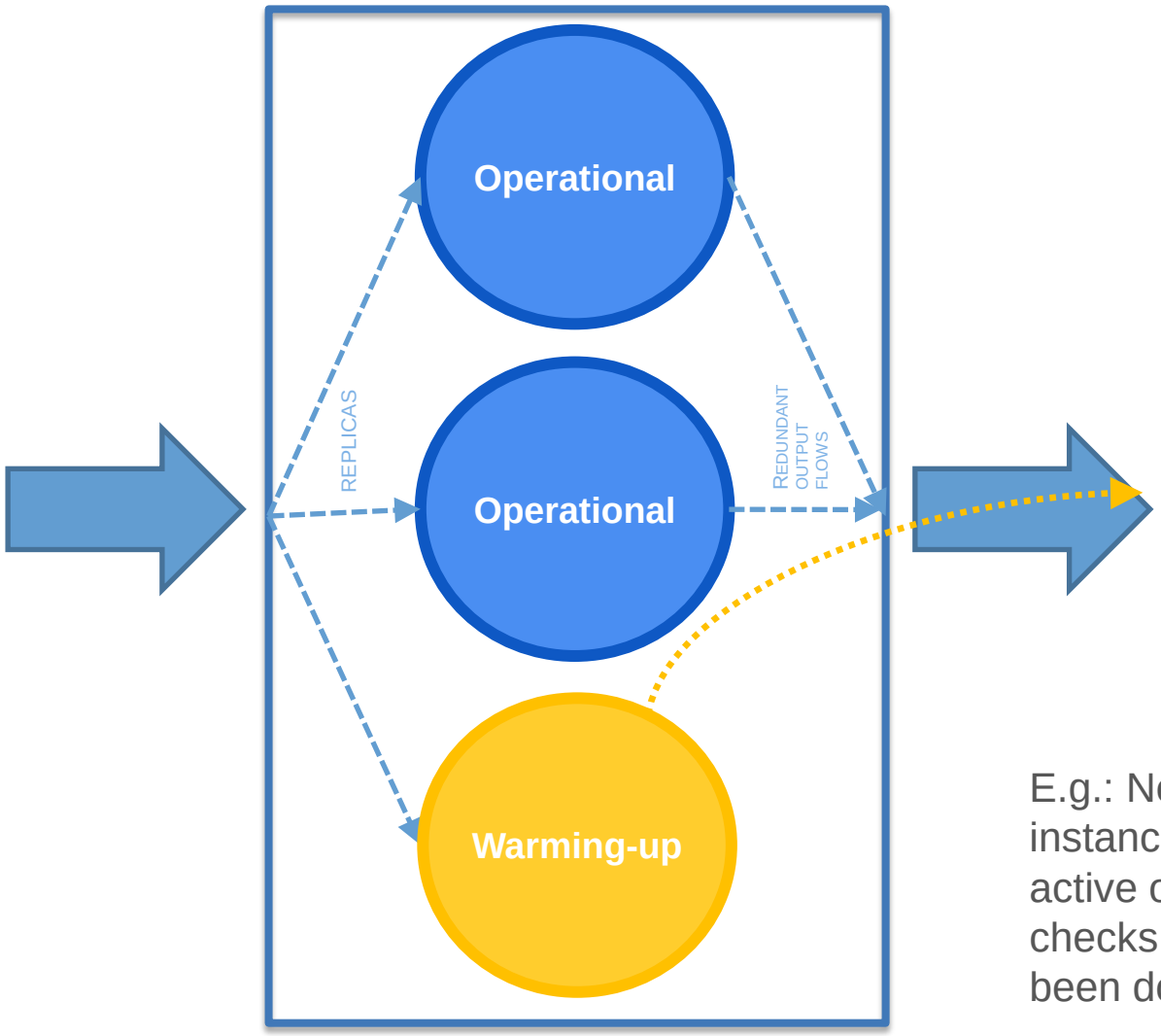
Change management process – Step 2



“Not eligible messages”: Messages are not used for output (used for comparison?)

E.g.: New configured instance must be really active only after some checks of correctness have been done

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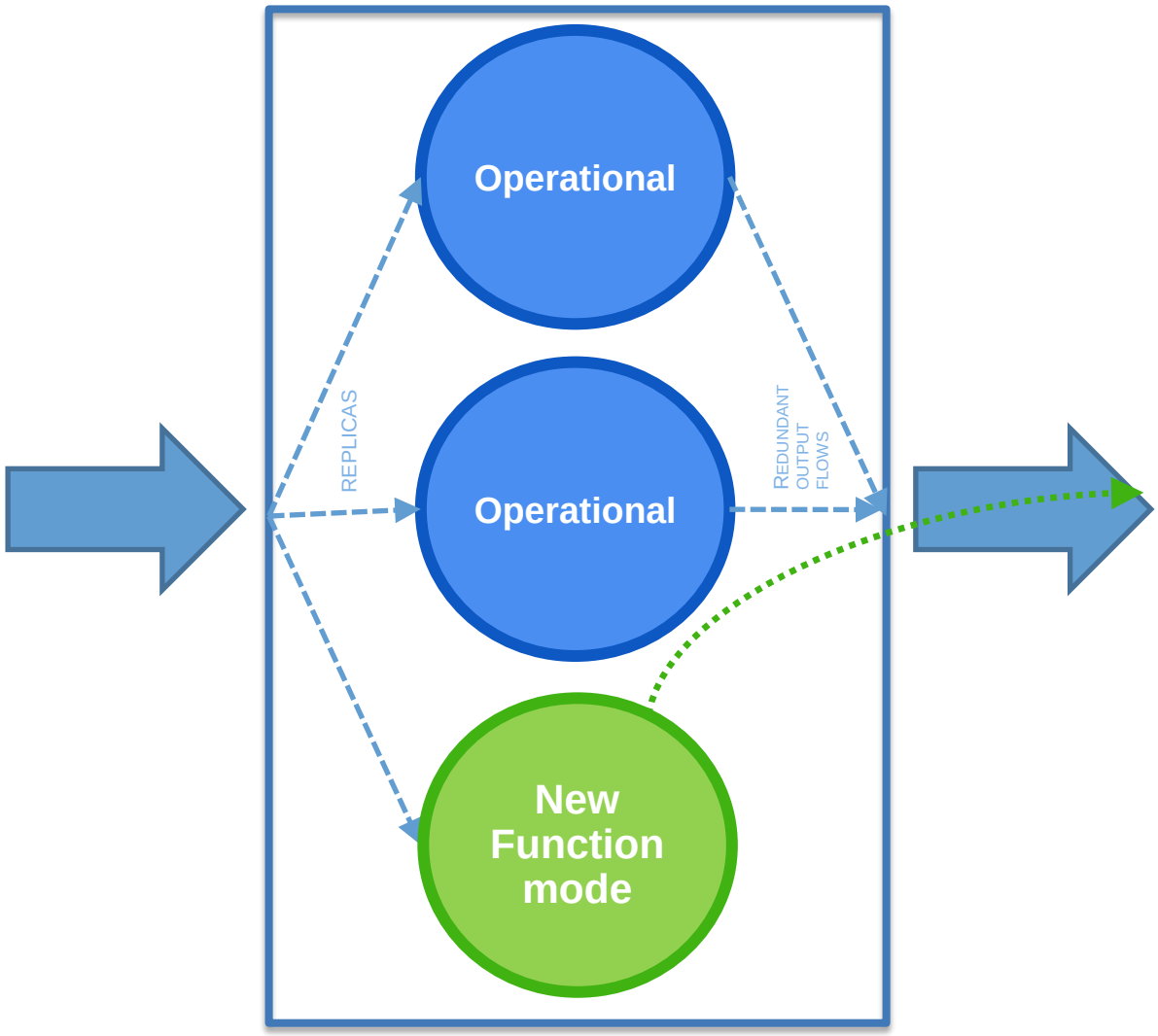
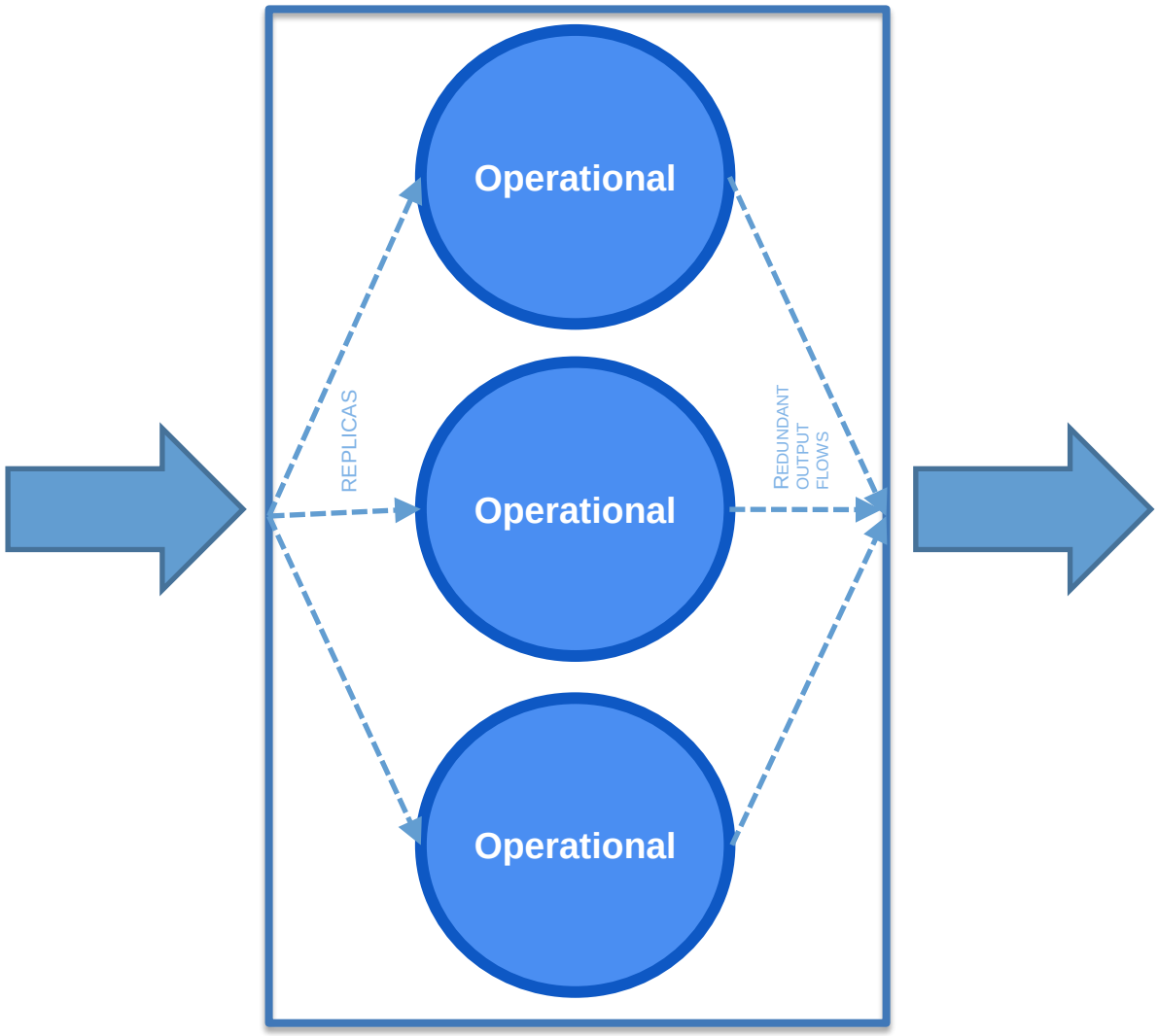
Change management process – Step 3



"New version" messages: In this phase both **OLD** and **NEW** version messages can be delivered to PSPs

Change management process – Step 4



“New version” messages:
In case of error or unsuccessful deployment, the node is rolled-back to the original status

Compatibility mode 1/3

To allow continuous operation:

- Any change in the system should be designed to be deployed in two steps:
  - **Step 1 – Compatibility mode** where new and old behaviors can coexist.
  - **Step 2 – New function mode** where old behavior is not allowed anymore

Compatibility mode 2/3

Example: A new mandatory tag must be added to a message from time T_F change in the system should be designed to be deployed in two steps

- **Step 1 – Compatibility mode:**
  - At T_0 all receivers must be able to accept (maybe ignoring it) the new tag
  - At $T_1 > T_0$ senders can produce the new tag
- **Step 2 – New function mode:**
  - At $T_F > T_1$ all senders must produce the new tag
  - Old format not allowed anymore

Compatibility mode 3/3

Example: A new service must provided starting from time T_F

- **Step 1 – Compatibility mode:**
  - At T_0 all servers must be able to provide the service if asked to do so. No clients can require the new service
- **Step 2 – New function mode:**
  - At $T_F > T_0$ any client can require the new service