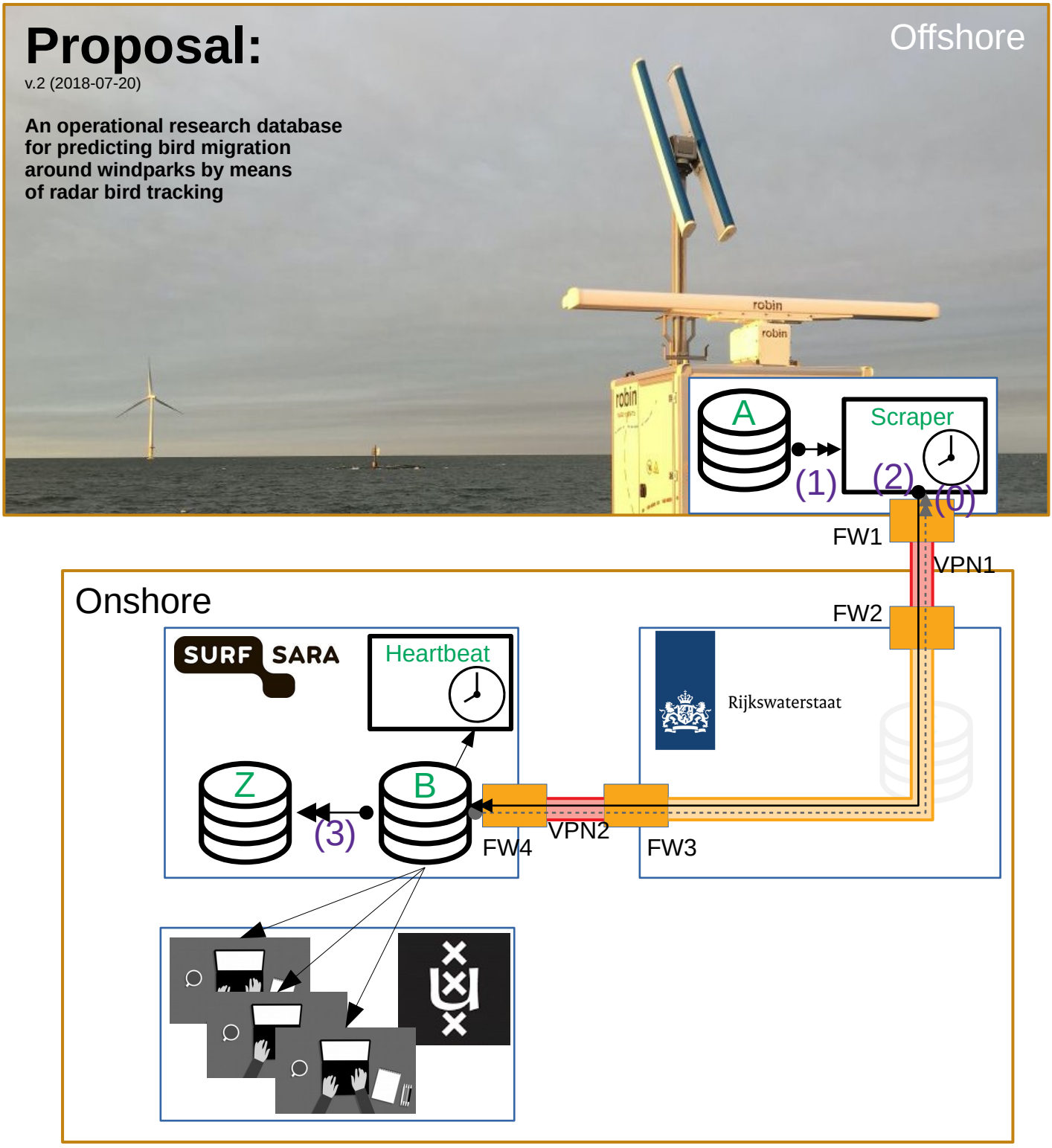
Proposal:

v.2 (2018-07-20)

An operational research database for predicting bird migration around windparks by means of radar bird tracking



Synopsys:

Data replication:
At the windpark, offshore, the radar hardware and software produce (track) information into a database, A. SURFsara host a research database, B. Robin's scraper can run at the windpark every minute to read from B what the latest record is (see 0), then read from A what is new since then (see 1), and finally send all new records from A to B (see 2).

Data path:
From the offshore radar location to the onshore Rijkswaterstaat's datacenter, there is a lightpath in place. For the sake of this description, this is connecting firewalls FW1 and FW2 through VPN1. Another two firewalls FW3 and FW4 between Rijkswaterstaat and SURFsara keep a secure connection over the Internet through VPN2. Internally, Rijkswaterstaat arrange their network to connect FW2 and FW3.

Data consistency and preservation:
SURFsara arrange a long-term storage solution, Z, possibly offline, for archival purposes, through a transfer (3). A process running periodically (Hearbeat) checks whether data is still coming through; it could emit an alert when data fails to come after a given period of time.