Business process automation 2015

Project stage 1 – Modelling of assignment subject
ABP2015

Group

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Topic

Prison Facilities Services – Automation of Inmate admission and processing

Quick overview

Ohio Department of Rehabilitation and Correction (ODRC) in United States has a very strict and convoluted procedure for admitting new detainees – however its high repetitiveness and scale make it a perfect match for automation.

Upon admission to ODRC intake centre, offenders need to be photographed and fingerprinted as part of the identification process. After that, physical, dental and eye examinations are conducted. Various tests are administered to detect medical health problems and to determine educational and intelligence levels. Interviews with offenders gather information relevant to family structure, criminal and social behaviour, drug and alcohol involvement, military and institutional experience, as well as education and employment history. All this data needs to be cross-referenced with government systems – lack of a centralized system makes it even more laborious.

Stakeholders

- United States Government
- Convicts
- Prison staff
- Specialists (i.e. doctors)
- Various government data systems

Elaboration

Inmate admission process

1. Inmate received from conveying agency.
2. Inmate strip searched.
    a. Related: After-effect of #1
3. Record office personnel receives and reviews commitment papers and assigns the inmate an institution identification number. Commitment needs to be checked with internal system, IID needs to be produced from the same system.

    a. *Param*. In: Commitment papers
    b. *Param*. Out: Initial admission approval, IID
    c. *Related*: After-effect of #2
4. Property search. Excess sent home at the inmate's expense or destroyed. May need to contact external system for sending out the goods.
    a. *Param*. In: Inmate property, Inmate data
    b. *Related*: After-effect of #3
5. Clothing and personal hygiene items issued from the vault. Need to fully record what was taken form vault and whom it was assigned to – done via internal system, separate from others.
    a. *Param*. In: IID
    b. *Param*. Out: Clothing & Hygiene items
    c. *Related*: After-effect of #4
6. Barbershop-regulation reception haircuts
    a. *Param*. In: Head without formal hair-cut
    b. *Param*. Out: Head with formal hair-cut
    c. *Related*: After-effect of #5
7. Profile photos taken, id badge issued, emergency notification data entered into internal computer system
    a. *Param*. In: Inmate
    b. *Param*. Out: Id photo, Id badge
    c. *Related*: After-effect of #6
8. Medical intake history, TB test, mental health initial evaluation. Need to acquire medical health information from external computer system, need to put evaluation results in internal system
    a. *Param*. Out: Inmate health evaluation
    b. *Related*: After-effect of #7
9. Assigned to intake housing unit, handbook issued, general orientation given, showers given
    a. *Related*: After-effect of #8
10. Chest x-rays with initial dental exam, need to put evaluation results in internal system
    a. *Param*. Out: Inmate health evaluation
    b. *Related*: After-effect of #9
11. Blood drawn by phlebotomist, need to send blood for testing and to receive results
    a. *Param. In*: Blood sample
    b. *Param. Out*: Test results
    c. *Related*: After-effect of #10
12. Reception physician complete physical examination, results send into computer system
    a. *Param*. Out: Inmate health evaluation
    b. *Related*: After-effect of #11
13. Fingerprints taken, cross-examined with police-systems for owner authentication
    a. *Param. In*: Fingerprints
    b. *Param. Out*: Fingerprints search result
    c. *Related*: After-effect of #12
14. Inmate interviewed by classification specialist for visiting lists and separation. Needs to include the reception classification intake questionnaire. Results recorded in internal system.
    a. *Param. In*: Reception classification intake questionnaire (from computer system)
    b. *Param. Out*: Review results
    c. *Related*: After-effect of #13

15. Security threat group identification and registration, needs deep cross-examination with multiple security-related systems
    a. *Param. In*: Complete inmate data
    b. *Param. Out*: threat group id
    c. *Related*: After-effect of #14
16. Detailed mental health interviews to better determine levels of care, including: crisis intervention of placement in a residential treatment unit. All data should be saved and propagated accordingly.
    a. *Param. Out*: Better individual care policy
    b. After-effect of #15
17. PPD read
    a. *Param. Out*: PPD test results
    b. After-effect of #16
18. Educational testing, saved in internal system
    a. *Param. Out*: Education tests results
    b. After-effect of #17
19. Public defender orientation
    a. After-effect of #18
20. Recovery service testing administering prison inmate inventory
    a. After-effect of #19
21. Chaplain's orientation
    a. After-effect of #20

Tool used in modelling:

- Bizagi Modeler 2.9.0.4

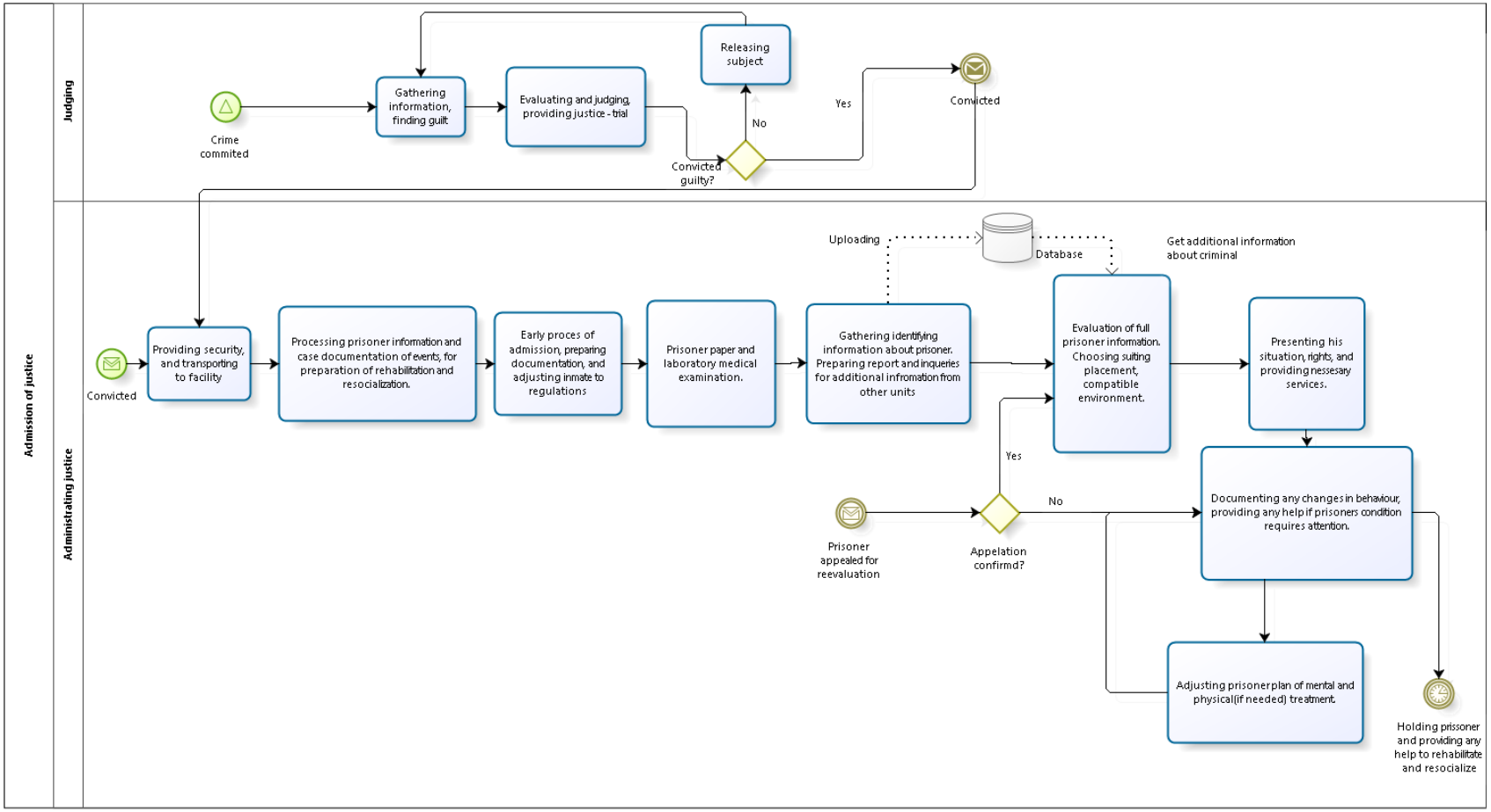
Simulations:

Thanks to the software we used, we were able to perform basic simulations of our model and improve on it due to simulation results. The most important effects of simulations performed are:

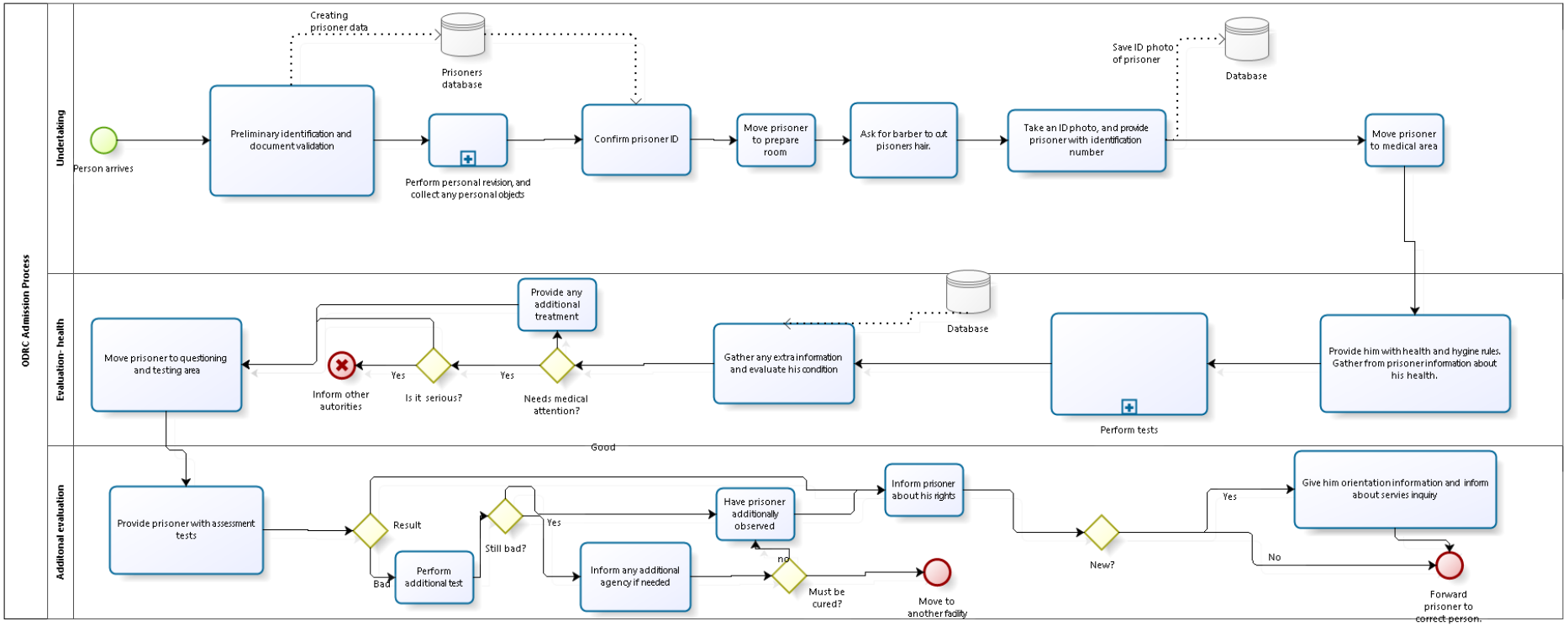
- Checking papers validity at the start of the process, to minimize time wasted
- Running security threat evaluation in parallel to psychological evaluation to save time
- Checking if prisoner is a newcomer at the very end (it makes if-else path easier to follow and have lesser impact on process)
- Divining sick prisoners into two categories: very sick and sick (sick prisoners can be treated at the facility, and very sick prisoners are not met so often)
- Moving gathering emergency contact list from entrance lane to staging lane – it improves efficiency.

Process “To be” Models

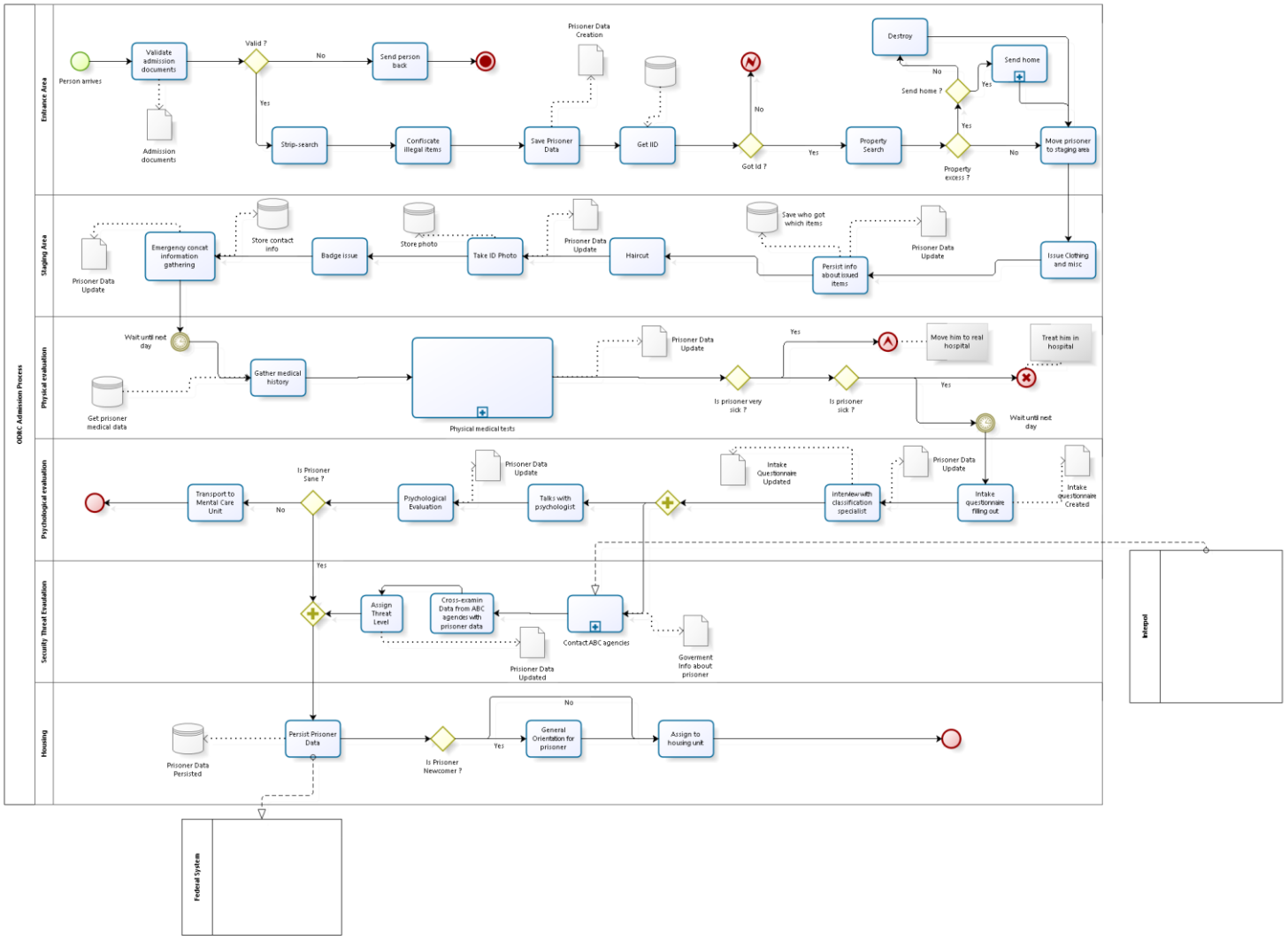
A. Level 0



B. Level 1


ODRC Admission Process
Undertaking
Evaluation- health
Additonal evaluation
Creating prisoner data
Prisoners database
Person arrives
Preliminary identification and document validation
Perform personal revision, and collect any personal objects
Confirm prisoner ID
Move prisoner to prepare room
Ask for barber to cut pisoners hair.
Take an ID photo, and provide prisoner with identification number
Save ID photo of prisoner
Database
Move prisoner to medical area
Provide him with health and hygine rules. Gather from prisoner information about his health.
Perform tests
Database
Gather any extra information and evaluate his condition
Provide any additional treatment
Needs medical attention?
Yes
Is it serious?
Yes
Inform other autorities
Move prisoner to questioning and testing area
Good
Provide prisoner with assessment tests
Result
Bad
Perform additional test
Still bad?
Yes
Inform any additional agency if needed
Have prisoner additionally observed
no
Must be cured?
Move to another facility
Inform prisoner about his rights
New?
Yes
No
Give him orientation information and inform about servies inquiry
Forward prisoner to correct person.

C. Level 2


OOBC Admission Process
Entrance Area
Person arrives
Validate admission documents
Admission documents
Valid ?
No
Send person back
Yes
Strip-search
Confiscate illegal items
Prisoner Data Creation
Save Prisoner Data
Get IID
Got Id ?
No
Yes
Property Search
Destroy
Send home ?
No
Send home
Yes
Property excess ?
Yes
No
Move prisoner to staging area
Staging Area
Prisoner Data Update
Emergency concat information gathering
Store contact info
Badge issue
Store photo
Take ID Photo
Prisoner Data Update
Haircut
Save who got which items
Persist info about issued items
Prisoner Data Update
Issue Clothing and misc
Physical evaluation
Wait until next day
Get prisoner medical data
Gather medical history
Physical medical tests
Prisoner Data Update
Is prisoner very sick ?
Yes
Move him to real hospital
Is prisoner sick ?
Treat him in hospital
Yes
Wait until next day
Psychological evaluation
Transport to Mental Care Unit
Is Prisoner Sane ?
No
Psychological Evaluation
Prisoner Data Update
Talks with psychologist
Intake Questionnaire Updated
Interview with classification spedialist
Prisoner Data Update
Intake questionnaire filling out
Intake questionnaire Created
Security Threat Evaluation
Yes
Assign Threat Level
Cross-examin Data from ABC agencies with prisoner data
Prisioner Data Updated
Contact ABC agencies
Goverment Info about prisoner
Interpol
Housing
Prisoner Data Persisted
Persist Prisoner Data
Is Prisoner Newcomer ?
Yes
No
General Orientation for prisoner
Assign to housing unit
Federal System