

AARHUS UNIVERSITY
SYSTEMS ENGINEERING
COMPANY H

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Support Plan

BEUMER Group

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1 Version History

Ver.	Date	Initials	Description
1.0	12-04-2021	TM	First draft of document.
1.1	19-04-2021	RC, MJE, MD, JB	added scope, phase, initial and in-service planning

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2 Scope

The system of interest is the extended Baggage Handling system CrisBag. Please refer to the case description for more information [1].

2.1 System Overview

The purpose is SOI is to extend the CRISBAG system with additional screening, specifically SecureScreen RX 5001 level 3 screening machines.

2.2 Document Overview

The system support description (SSD) describes the phase in/out procedure, the initial procedures, the in-service support for software and hardware and maintenance of the the system or subsystem. The document structure and setup is inspired by the SE Casebook [2].

3 Reference Documents

System Requirements Specification, id: SRS-02-00-JJ_RC_MB_MJE-v02_1-20210404.

Detailed Design Document, id: DDD-01-00-MJ_TM-v01-20012021.

Preliminary design, id: PDE-01-00-ALL-v01-20210704

Concept of Operations, id: CONOPS-01-00-TM_MJ_MD_JB-v01-20211003

4 Phase-in / Phase-out

In this section the phase-in and phase-out plan of the system will be described. When a system or a part of a system is about to be upgraded or exchanged, then it is important that this happens as painlessly as possible. The customers/users of the system should ideally not experience any degrading in the use of the system unless they have been warned about this in advance. The phase-in for the Crisbag extension in this project should be handled such that the system extension should be built in the agree upon area of the airport and then be connected to the rest of the system. The same procedure should be used for the phase-out of the system. The rest of the system could then be proceed as the before the extension was introduced. The same counts for the individual part of the extension to the system as the extension could be stopped and then the extension part could be replaced. This however should be done with as little downtime as possible.

5 Initial training

Before the system is installed, operation manuals will be delegated to all operators of the system, there will also be scheduled training and testing of all operators to ensure they meet the minimum required skill when operating the system. The training program will include:

- Proper operation procedure of the system with a video demonstration
- Security briefing regarding the high voltage used in the system
- Security briefing on proper etiquette near and around the transport belts
- How to react to potential dangers and system error messages

After the training the future operators will be tested on their knowledge of the system and the operation of the system to make sure that they meet the minimum required skills. Beumer group or their subcontractor will not provide any training facilities.

5.1 Maintenance Plan

To fulfill maintenance on the system, a change of state is need. The system will have to change from Operational into the Maintenance stage if it isn't already active. From there a Maintenance mode must be chosen to chose where the maintenance is done. This is done to keep the system as operational as possible and avoid any disturbance in the functionality of the system.

6 In-service support

This section describes how the system in use is supported. The supported parts is covered in Product Support Description from Concept of Operations.

6.1 Software Update Plan

When a Software update is planned, it must be scheduled at least 10 days in advance. When an Software Update is done, the system must be rolled on to a backup server, that will run the system while the main system is updated with the new software.

6.2 Hardware Update Plan

The system should undergo scheduled maintenance at a predetermined number loop of the belts, the systems software will alert the operators when the system needs maintenance. During the scheduled maintenance an operational readiness test will be performed and any operational issues that arrive can then be handled.

6.3 Hotline support

The hotline provides a 24 hour support for the customer to contact BEUMER group to get support on the limited parts described in the product support description from ConOps.

References

- [1] Beumer, “BAGGAGE HANDLING UPGRADE,” vol. 2017, pp. 1–11, 2018.
- [2] R. H. Jacobsen and S. Hallerstedte, “Systems Engineering Cases and Instructions,” [Online]. Available: https://blackboard.au.dk/bbcswebdav/pid-2945704-dt-content-rid-10601901_1/courses/BB-Cou-UUVA-94215/SECasBook8.pdf.