TIL ORGANISASJONEN

Etter et stort og omfattende arbeid kan vi endelig dele Røde Kors sitt støtteverktøykonsept for beredskap og aksjoner med hele organisasjonen. Dokumentet som følger er et støttedokument som beskriver fagområdene («domains») beredskap og aksjoner, samt sentrale arbeidsflyter i disse («scenarios»).

Det er viktig at dere forstår at det som beskrives her er våre krav, og ikke nødvendigvis helt likt den endelige løsningen. Denne får vi ikke på plass før etter vi har valgt hvordan støtteverktøyene skal leveres og av hvem til høsten. På tirsdag 30/april sendte vi ut forespørsel om tilbud til et titalls nasjonale og internasjonale og leverandører. Tilbudsprosessen skal etter planen avsluttes i løpet av september. Etter dette starter selve arbeidet med å utvikle og levere systemene.

DOMAINS AND SCENARIOS

Incident Preparedness and Response Management System

Norwegian **Red Cross**

1. BOUNDED CONTEXTS

The Incident Preparedness and Response Management System contains the following bounded contexts[1]:

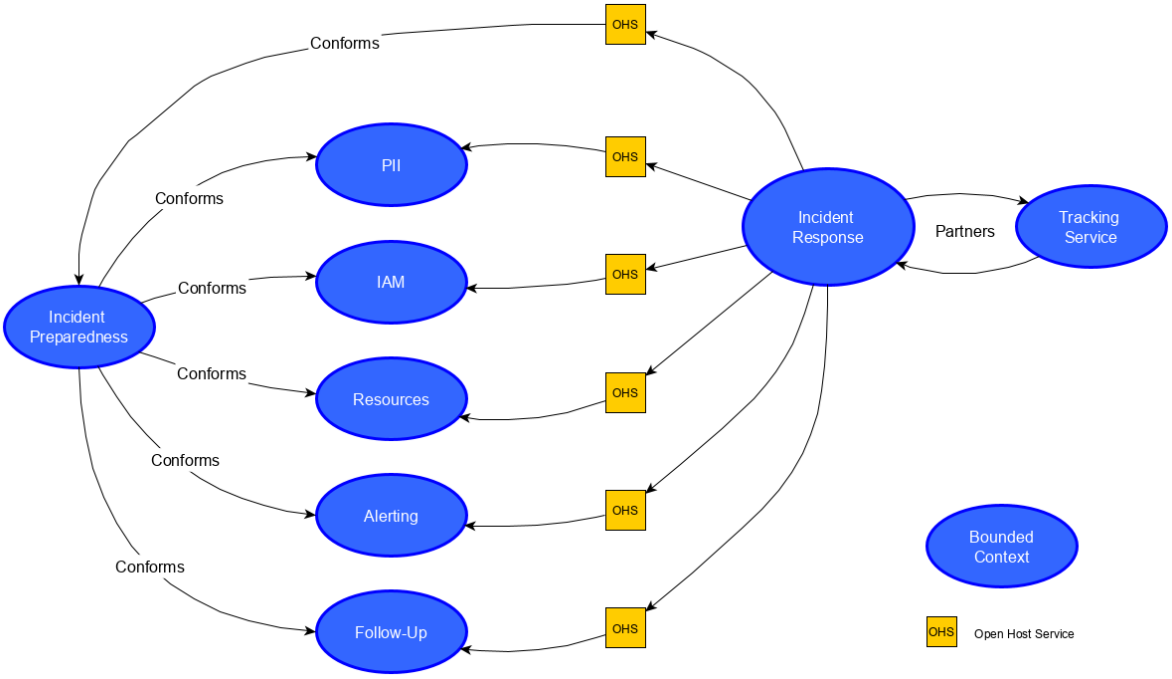

Figure 1 Bounded contexts map of Incident Preparedness and Response Management System

This context map[2] gives a general and broad overview of how all contexts are related to each other. Please note that the Incident Response Management System is decoupled from other contexts using Open Host Services[3]. This ensures a stable internal API that isolates the IRMS from implementation details of multiple system offerings in other bounded contexts (different resource management system, different alert management systems etc.).

The primary reason for this design is stated in non-function requirement NRF09, which states that the system must comply with fundamental requirements for digital support systems in Norwegian Rescue service, described in chapter 14.4 "Requirements for support tools". This will allow other volunteer organizations to implement IRMS at the lowest possible cost by adding integrations it with existing systems for resources, personal identifiable information, alerting and preparedness using the Open Host Service without any the need to change IRMS itself.

[1] Doman-Driven Design concept, see http://ddd.fed.wiki.org/view/bounded-context
[2] Doman-Driven Design concept, see http://ddd.fed.wiki.org/view/context-map
[3] Domain-Driven Design pattern, see http://ddd.fed.wiki.org/view/open-host-service

2. INCIDENT PREPAREDNESS MANAGEMENT SYSTEM

2.1 Domain

The primary goal of the preparedness process is to ensure that Norwegian Red Cross have the right capacity to respond to incidents local government is not capable of handling themselves. The preparedness process is continuously evaluating risks to identify new areas of need, identifying capacity gaps, tracking exception from standards and norms, and ensuring that all personnel is taken care of after each response.

The minimum list of domain objects required to manage the process is (not mandatory):

ROS[4]-analysis • Vulnerability • Cause • Consequence • Risk • Preventive measures	**Preparedness planning** • Plan • Section • Checklist • Document	**Debrief Management** • Incident • Personnel • Schedule • Report
Exception Management • Exception • Cause • Action		

2.2 Principal scenarios

Following scenarios describes core functions as workflows performed by principal roles managing Incident Preparedness.

ID	Scenario	Req. No.
2.2.1	Preparedness Manager creates a ROS-analysis on national, district and local level, and the levels can read each other's ROS-analysis.	AFR 01, AFR 18
2.2.2	Preparedness Manager creates incident preparedness plans based on the ROS-analysis, and create checklists based on the incident preparedness plan.	AFR 03, AFR 05

[4] ROS is short for "Risiko og sårbarhet", which translates to "Risk and vulnerability", see https://www.dsb.no/lover/produkter-og-forbrukertjenester/veiledning-til-forskrift/temaveiledning-i-risikoanalyse for more details.

ID	Scenario	Req. No.
2.2.3	Preparedness manager can plan, carry out and evaluate exercises in the same system, as in a "live" situation. After an exercise there will be tasks to follow up. These tasks must be followed up by the responsible role/person. There should be a distinction between the live system and exercise mode.	AFR 09
2.2.4	After an incident or mission the participants should get an opportunity for debrief, immediately and in the aftermath. The preparedness manager can plan, schedule, and follow briefings for their participants and make summary reports.	AFR 10-13

3. ALERT MANAGEMENT SYSTEM

3.1 Domain

The minimum list of domain objects required to manage the process is (not mandatory):

- Alert
- Respondents
- Message
- Position
- Image

3.2 Principal scenarios

Following scenarios describes core functions as workflows performed by principal roles managing Incident Response invocation.

ID	Scenario	Req. No.
3.2.1	Incident Commander sends an alert to relevant personnel for given incident, which requires the following steps to be performed: 1. **Create a new alert** from appropriate template and link alert and incident 2. **Add (or remove) personnel** based on matching incident with competence if the template does not include them already 3. Send the alert **4. Monitor responses** 5. **Close alert** when all responses are received, or incident is closed. Update alert message and notify respondents if needed.	BFR 1-12

ID	Scenario	Req. No.
3.2.2	Personnel receives alert and responds if they can attend or not, which requires the following steps to be performed: **1. Open Alert App** **2. Read information** **3. Select correct response** Change response if needed.	BFR 15-17

4. INCIDENT RESPONSE MANAGEMENT SYSTEM

4.1 Domain

Incident Response Management consists of three fault-tolerant, distributed and asyn-chronous work processes coordinated by exchange of messages of change (see Figure 2).

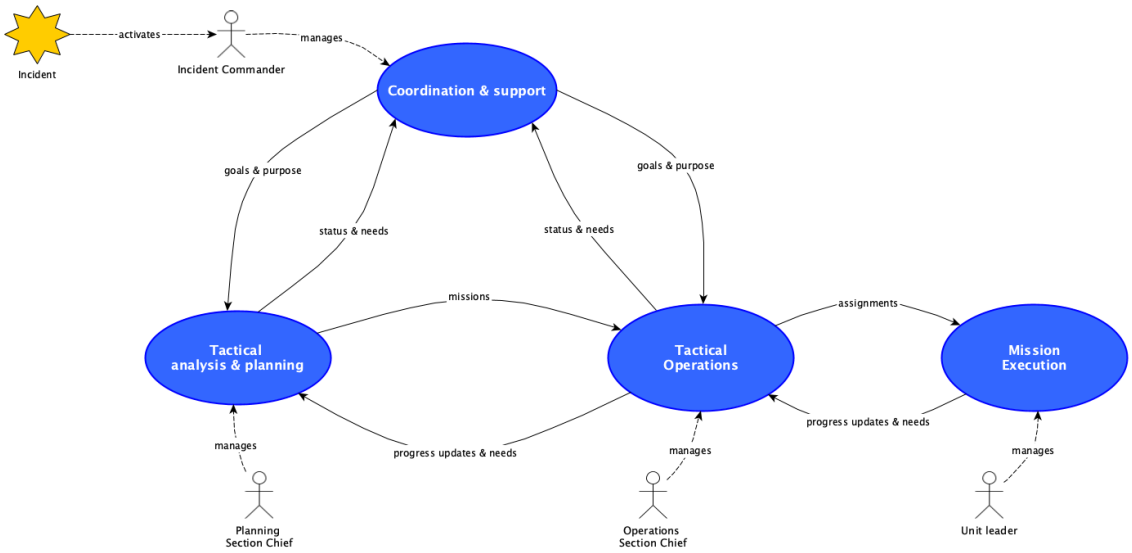

Figure 2 IRMS work processes

Incident response is led by an Incident Commander (role), together with a Planning Section Chief (role) and an Operations Section Chief (role). These three roles form the Incident Command. Each user in the system can have one or more roles. Minimum number of domain objects required to manage an Incident Response is shown on next page in Figure 3

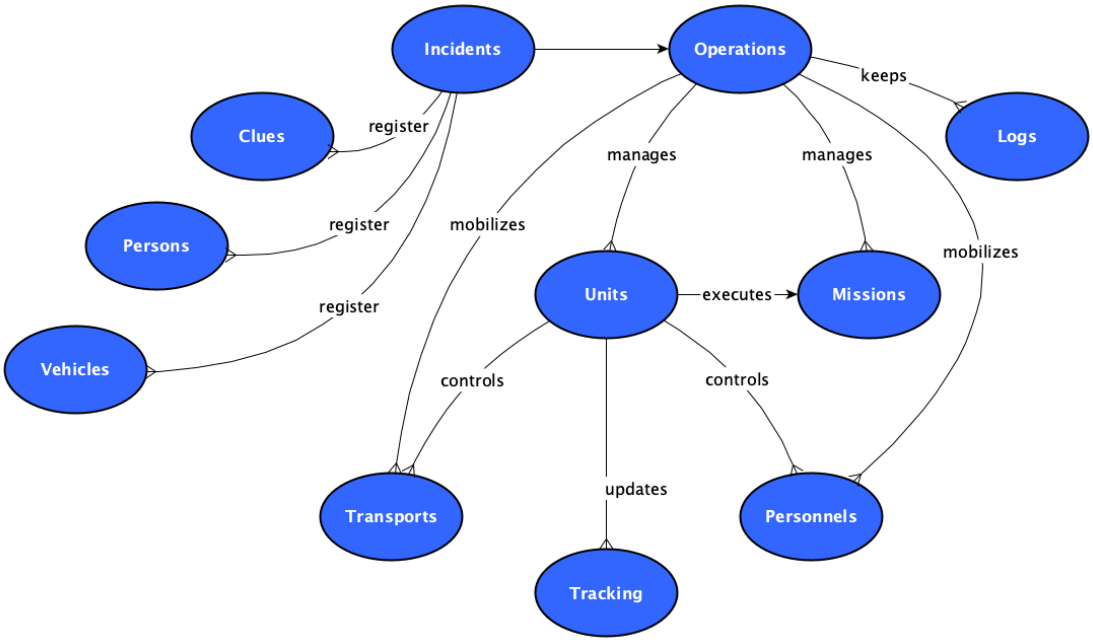

Figure 3 IRMS domain objects

4.2 Principal scenarios

Following scenarios describes core functions as workflows performed by principal roles managing Incident Response.

ID	Scenario	Req. No.
4.2.1	Incident Commander is contacted by the requisitioner and alerts personnel, which requires the following steps to be performed: **1. Register an Incident** (situation as free text, clues, persons, vehicles) **2. Analyze type of Incident and determine type of response** **3. Start an Operation** (incident response) **4. Send an Alert** **NOTE**: This workflow is typically preformed from home or at work, which implies a desktop form-factor user interface. However, the response on scene, where the bulk of IRMS functionality is used, is typically performed on mobile devices. After some time, the Incident Command will establish a more permanent Incident Command Post, which is typically equipped with laptops and larger screens. Team leaders are typically using Samsung Galaxy Tab Active2 (android, 8 inches screen).	BFR 02 BFR 6-12 CFR 01-05

ID	Scenario	Req. No.
4.2.2	Personnel receives Alert and choose a response, which requires the following steps to be performed: 1. **Manage readiness level** a. Choose a level that suits everyday life b. Change when situation demands it 2. **Listen to Alert message** a. Using an App or by answering a call b. Postpone and listen later 3. **Choose a response** a. Decline permanently b. Accept, mobilize immediately c. Postponed, mobilize later 4. **Mobilize and deploy to meeting point** a. Check requirements for skills and personal equipment b. Navigate to meeting point 5. **Register on scene** a. Confirm check-in or manual registration if offline	BFR 15-18 CFR 40
4.2.3	Planning Section Chief continually manages Mission planning, which requires the following steps to be performed: **1. Create Missions** based on type of Incident, available Clues and actual progress a. Start by drawing a geometry representing the mission b. Define requirements (text) c. Define priority and criticality d. Submit Mission as ready for execution **2. Continually monitor situation** for changes that affects current plan **3. Re-prioritize Mission priority and criticality** when situation change **4. Cancel Missions no longer needed**	CFR 08 CFR 11-14 CFR 16-30 CFR 33 CFR 55 CFR 69-72
4.2.4	Operations Section Chief manages Units based on arrival and departure of Personnel and number of Missions, which requires the following steps to be performed: **1. Monitor mobilized Personnel** a. Whom and how many responded “attending” b. Send an Alert when more personnel are needed **2. Manual registering arrival of Personnel in Attendance list** a. Create new Units to group Personnel for Mission execution b. Unit types are determined by Incident and Missions types c. Add Personnel from Attendance list (reactive) d. Add Personnel from Alert responses (proactive)	BFR 02 BFR 03 BFR 6-14 CFR 12 CFR 17,18 CFR 20-30 CFR 31-42

ID	Scenario	Req. No.
	3. Decommission unused Units a. Units no longer needed (surplus units) b. Units with no Personnel (empty units)	
4.2.5	Operations Section Chief continually manages operations (mission executions, deployments) which requires the following steps to be performed: **1. Identify next Mission to execute** a. Identify next Unit available for execution of given Mission b. Allocate Mission to Unit **2. Identify idle Units available for execution next Mission** a. Identify next Mission to execute b. Allocate Mission to Unit **3. Distribute information to Units** a. Situation, Administrative, Status **4. Update mission progress** a. Manage tracking b. Manage mission status c. Manage mission reporting **5. Register all communication in Communication Log** a. To and from Incident Command	CFR 03 CFR 08-09 CFR 12-13 CFR 32-37 CFR 46-53 CFR 55-58 CFR 60-61
4.2.6	Team leader manages Missions assigned to Unit, which requires the following steps to be performed: Manage Personnel and equiptment **1. Select the Mission which minimize travel distance** a. Inspect pending Missions assigned to Unit b. Choose Mission closest mission with highest priority **2. Start Mission execution** a. Inform team members of mission requirements b. Change Mission status to Execution **3. Handle Mission execution** a. Suspend and resume execution b. Communicate with Incident Command c. Manage own Clues **4. Report progress** a. Fill out Mission reports b. Change Mission status to Finished or Aborted c. Report Operation Objective achievements (subject found, subject rescued)	CFR 03 CFR 07 CFR 10 CFR 17 CFR 18-30 CFR 33 CFR 40-42 CFR 46-50 CFR 52 CFR 57 CFR 69-72
4.2.7	Incident Commander completes or cancels the operation, which requires the following steps to performed: **1. Perform a Complete or Cancel action** a. Mark Incident as unresolved, resolved or duplicate	CFR 01 CFR 03 CFR 06 CFR 65 CFR 67

ID	Scenario	Req. No.
	b. Add additional information to the Incident Report (already prefilled with relevant information) c. Transfer Incident Report to Incident Report system (SAR-report system operated by HRS)	
4.2.8	Incident Commander sends reimbursement application to requisitioner, which requires the following steps to performed: **1. Open a SAR operation reimbursement application** a. Add additional information to the Incident Report (already prefilled with relevant information from IRMS) b. Notify Personnel that personal reimbursements are open for registration c. **2. Certification of personal reimbursements** a. Check value of each line in each reimbursement b. Approve or Deny with comments **3. Send reimbursement to requisitioner** a. Transfer reimbursement application to reimbursement application system. b. OR send as email as attachment	CFR 62-64

IMPORTANT NOTE: These principal workflows form chains of critical requirements which all applications must fulfill. Deviations from the patterns described above can be accepted as long as all critical requirements are met.