# System Concepts

The tool provides an easy way for anyone to organize and simplify the management of any activity in any organization. It provides a transparent and flexible system in which individuals can collaborate in a free and flexible, but yet accountable manner. It enables a more organic and loosely defined Organization which adapts to the needs.

## Core Entities

* Profile
* Organization
* Task
* Resource

## Profile

When a visitor of SCANVA.COM wishes to start using the DOPS tool the visitor first needs to create a Profile. The Profile now becomes the virtual entity that uniquely identifies all interaction done by the specific user.

### Attributes

* Username
* Password
* Visibility
* Basic contact details
* Extended contact details
* FOTO
* Description
* Memberships
* Calendar
* Event Log

## Organization

The Organization is the main context of all activity. Any user (Profile) is able to create an Organization, and is default set as its Owner. The Owner invites existing Profiles or people by SMS or email to become Members. The Owner now delegates the default system Role ‘Administrator’ or continues on his/her own to define and allocate the Roles needed by the Organization to function. A set of predefined Roles can be used (e.g. the ‘VVS’, or ‘Carpenter’ template), in order to map the appropriate actions to the right people.

### Attributes

* Name
* Description
* Owner
* Basic contact details
* Extended contact details
* FOTO or logo
* Roles (Action/Access mapping)
* Members
* Visibility
* Customers
* Tasks
* Event Log

## Task

A Task represents any level of work that needs to be done by an organization. A Task can be sub divided into more Task’s if needed and their by create a hierarchy of actions that needs to be accomplished by the organization in order to get the job done. A Task can be delegated to any Member of an Organization.

### Attributes

* Title
* Description
* Owner/Parent (if sub-Task)
* Responsible
* Deadline
* Dependencies / Requirements
  + Bookings (Resource’s / Role’s/ Member’s)
  + Tasks
* Priority
* Status (Approval, Progress etc., Review, Bookings, dependency allocations, etc.)
* Event log
* Compensation Details (if Top-level Task)

## Resource

Any non-human resource like tools, vehicles, and materials are handled as Resources. In order for any Organization to complete the work defined by its Tasks, dependencies exists on e.g. the right tools to be available.

### Attributes

* Name
* Owner
* Specification Details
* Skill Requirements
* FOTO
* Description
* GUID
* Resource Category
* Maintenance & Service info
* Calendar
* Status (responsible, location, Active Task, current booking, etc.)
* Event Log

## Customer

Organizations are able to create Customers. All high level tasks are owned by a Customer.

### Attributes

* Name
* Organization Membership
* Basic contact details
* Extended contact details
* FOTO
* Description
* Memberships
* Tasks
* Event Log

# Activity flows

## The life time of a Customer request

1. A potential customer calls the Organization’s main phone number.
2. The Call is automatically routed to Employee Lisa since the 'Switchboard' Role allocated to her Member Profile.
3. Lisa which receives the call creates a new Customer instance in the system and describes in short the customer request in a Task and delegates the task to the appropriate person in the Organization.
4. The Organization Member which is now responsible of the new Customer Task reads the description and responds to the Customer by Customer page, phone or email with either more detailed questions or an answer.
5. Depending on the Customer response, the Task is now Closed or updated with more details. The Task is then either delegated further, or Approved as a pending Service Task that the Organization have agreed to for fill for the Customer.
6. The Customer will now receive an Order Conformation via email or mail witch states the main details of the agreement.
7. The Task will progress according to the initial planning towards the state ‘Closed’
8. Depending on the size of the Task, Impacts of changes in the planning, execution or compensation details are communicated to the Customer, and Approved or Rejected by this when needed.

## The purchase of a new Resource

1. A Member of an Organization purchase a new cordless screwdriver on behalf of the Organization.
2. The Member creates a new Resource instance in the system, describes in short the function and capabilities, and categorise the Resource as a Tool.
3. The Member now labels the Resource with a sticker displaying a unique ID and register it by scanning the Resource label using a system terminal with a build-in camera. In addition a picture of the tool is taken and added to its description.
4. A final confirmation is now done by the Member and the Resource is now visible and available as a Resource within the Organization.
5. The Member has been set as responsible for the Resource, but now transfers the responsibility by placing the new tool inside a toolbox which represents another Resource in the system. Loading the tool into the toolbox is done by selecting ‘Load Resource’, scanning the incoming Resource and the receiving Resource and the transfer is completed. If the responsible Member of the receiving Resource is different from the loaded resource, a confirmation of the transfer is needed.
6. The Member responsible of the Resource e.g. ‘Toolbox#17’ is now also indirectly responsible for the new cordless screwdriver and all other Resources within it.
7. The ‘Toolbox#17’ is now loaded/linked/allocated into the Resource ‘ServiceVan#3’, making the toolbox with its tools a part of the vans equipment.
8. So again the final responsible Member can always be identified.

## The creation of a new Organization

1. Any Profile is able to create and run one or more Organizations.
2. First the basic properties of the Organization needs to be defined.

Name, Description, Owner (Creating Profile), Visibility, Basic contact details (address, phone, email), and a FOTO or logo is added.

1. Now the basic Roles and Actions can be defined.
2. The Owner now invites existing Profiles or other people by SMS or email to become Members.
3. The new Members should now be allocated one or more Roles depending on needs.
4. Resource categories should now be defined (Machinery, Trucks, construction tools, etc.)
5. The existing assets of the Organization can now be added as Resources in the different categories.
6. The existing customers can now be added as Customers of the Organization.
7. Partners and Suppliers can now be added or invited to be represented in the Organization.
8. The existing work in progress can now be handled by the system by adding and sub dividing it into a number of manageable Tasks owned by either a Customer or the Organization itself.

## The life time of a Task

1. The Tasks should now be set to ‘planned’ state, by planning the execution of each, using the Members of the needed Roles and the Resources available. This is achieved by aligning the Calendars of each Resource and Member until a match is found or a good alternative is found.
2. When a Task have changed to ‘planned’ state, the proposal needs approval by the Owner.
3. When the Task Owner approves the plan, the Task status changes to ‘Approved’
4. The work should now proceed through the cycle of states towards Closed

States:

New, Defined, Proposal, Approved, Pending, In Progress, Stopped, Done, Closed.

Extended contact details

1. Customers
2. Tasks
3. Event Log
4. Activity Overview

Resource {Tool, Equipment, Material} , Source, Owner, Provider,

Language Support

HTML5

New

* Add details: Title, Description, Priority,

Defined

Proposal, Approved, Pending, In Progress, Stopped, Done, Closed.

The Owner now delegates the default system Role ‘Administrator’ or continues on his/her own to define and allocate the Roles needed by the Organization to function. A set of predefined Roles can be used (e.g. the ‘VVS’, or ‘Carpenter’ template), in order to map the appropriate actions to the right people.

# Events

* Entities like Resources, Memberships, Tasks, etc. each holds an Event-Log that consists of individual Events.
* The Event-logs represent the documentation of all activity within the Organization.
* Events are unique and individual log entries generated by different but relevant activity in an Organization.
* The relevance of an Event is stated by its ‘Importance’ attribute, which allows the Organization to limit the exposure and thereby reducing the interrupting nature of event broadcasting by filtering on this attribute depending on current Member Role allocations.
* The activities able to generate Events is by default, the Creation, Removal, or Modification of all the Organizational objects like Tasks, Memberships, Resources, etc.
* In addition, the Members are able to add comments (text, voice message, or picture) to all organizational objects/Entities.

## The Comment Event

* The ’Comment’ Event is a manually generated log-entry where a Specific Member in the context of his or her Role related to the specific Object/Entity in focus, Comments with his or her preferred type of input in the situation, like text, voice message, or picture.
* The Comment can then be read, commented, and ‘Rated’ by other Members.

**System Pitch**

The DOPS system is essentially a tool that facilitates communication and collaboration across an entire organization. From the small family business to large global enterprises. The system enables an extremely flexible and lean approach towards managing activities on all levels of an organization by a simple and practical interface, based on modern technology. The system is a hosted solution, which in practice means that members of the organization can join/participate from any internet enabled device with a modern browser. The work done by each individual will be visible everybody else, which leads to a clear accountability which again empowers each employee/member/participant/supporter in their contribution.

In a flexible

Progress on tasks becomes visible across the entire organization

Enables a fluid and less frictional communication, in a

## Wizards

Wizards are UI flows that enables users to perform Actions in a practical, easy and efficient way.

### Wizard examples

#### Create Organization

* Display available Role-templates

e.g. ‘VVS’ template=> typical Role types and there action mappings

#### Create Task

* Display the Details form
* Roles needed -> Display the Member profiles that will match (any perhaps non-member visible/’looking for job-work’ Profiles in the area.)

# Attributes

### Task Attributes

* Title
* Description
* Priority
* Deadline - ASAP, 13-02-2014 kl 13.00,
* Location (fixed): Customer location (address), other location.
* Status: Created, Approved, Delegated, Started, Pending TASK ID xyz, Done, Pending payment from end Customer, Closed. Progress: 37%
* Approval status: owner/planner role have validated/approved the new task
* Type: ‘Customer Order’, ‘Maintenance’, ‘SubTask’.
* Dependencies (Member Profiles , Resources and other Tasks)
* Bookings

## System/Basic Roles

* Organization Owner
* Organization Administrator
* Customer
* Task Approval

## Organization Roles

* Switchboard
* Truck Driver

## Events & Logs

Examples

* Picture taken
* Text Comment
* Voice Comment
* Task status change
* Resource status change

## Actions

* Create a new Organization
* Modify existing Organization Details
* Scan ID label
* Comment (Text or 20-sec Audio)
* Add a Resource FOTO
* Define a new Resource
* Modify existing Resource
* Delete existing Resource
* Invite a new user for a Membership
* Exclude/Expire Membership
* Define new Role
* Modify existing Role
* Add new Customer
* Add new Supplier or Partner
* Define new Task
* Modify existing Task
* Approve Task
* Assign Task
* Reject Task

## Role Actions

(Mapping of actions onto Specific Roles)

User(Profile) - Create Organization

Owner - Manage Member - 'set/delegate allowed roles/access for specific members'

- Add new Member - 'invite new member' via SMS, Email

- Removes/inactivates Memberships

Owner –

# Organization

Organization Type: {Business, Team, **Virtual**, Hive, Event, Network,}

(<http://en.wikipedia.org/wiki/Organizational_structure#Functional_structure>)

## Functional Structure

* Business, Team, **Virtual**, Hive, Event, Network

## Organizational Relations

* Internal Members
  + Compensation
* External Parties
  + Suppliers, and associated
  + Customers

### Membership

Status Active, Not Active

Valid Period

* Start date (Now, 13-03-2014, Not Set)
* Expire date (13-03-2014, Not Set)

Profile ‘A Specific Profile’

## Organizational Structure

* Hierarchy or Community

## Organizational Activities

* Task Creation
* Task Allocation
* Task Supervision

## Organizational Roles

1 system roles

2 org roles

Collective goals

Resources

Category: Tools, Trucks, 'define new category'

# Project Plan

* System Concept development
* Analysis phase
  + Create User Profiles (Personas)
  + User scenarios
  + User performance requirements
* Design Phase
  + Brainstorm Visual-Design concepts & Metaphors (Icons etc.)
  + Develop Screen flows and navigation model
  + Create design Sketch on paper
  + Create Wireframes
  + Complete Role-play sessions in order to validate the Design
* Implementation Phase
  + Testing
* Deployment Phase
* Use surveys to get user feedback
* Final Alpha Release in W26

## UI Interaction categories

* Alarm - Alert device user profile
* Forms - Fill in form data using the keyboard
* Identification & registration - Scan

## UI features

* Smart forms
* Search
* Scan - identify resources by scanning barcodes or NFC-Stickers
* Log-in
* Profiles can raise a “Help” impediment Alert, and get instant support from colleagues.

## User categories

* Owner
* Customer
* Member

# User needs

* Organization owner
  + Get an Overview at a glance -> 1-2 pages on a tablet device should be able to display all info needed
* Customer
* Member

## Key capabilities

* Replaces to-do lists
* Facilitates a clear Approval chain
* Democratic decisions by members ‘Voting’
* Reduce the need for internal phone calls
* Frees and commits the individual
* Enables a Lean and adaptable operation
* Fast feedback enables new decisions
* Alert patterns are defined for each ‘Role’.
* Empowering the individual

Activity streams

Profile – Account – access payment

Resource – booking payment

Group or Team hierarchy

Suggest new task #67896789 resolving task impediment #3456378