

# i Decision Support System

**ROPARDO – *research.ropardo.ro***

**12th LSS symposium**

Large Scale Systems: Theory and Applications

25 May 2012 Bucuresti, Romania

- **Ciprian Cându**
- **Gabriela S. Cându**
- **F.G. Filip**

## Outline

### Decision support

- What is
- Decision process
- Strategic, Tactical and Operational Decisions

### iDS

- Concepts
- Framework
- Support Decision Tools
- iDS API for Tools integration

### iDS Screens

### iDS Case Study

## History and Context

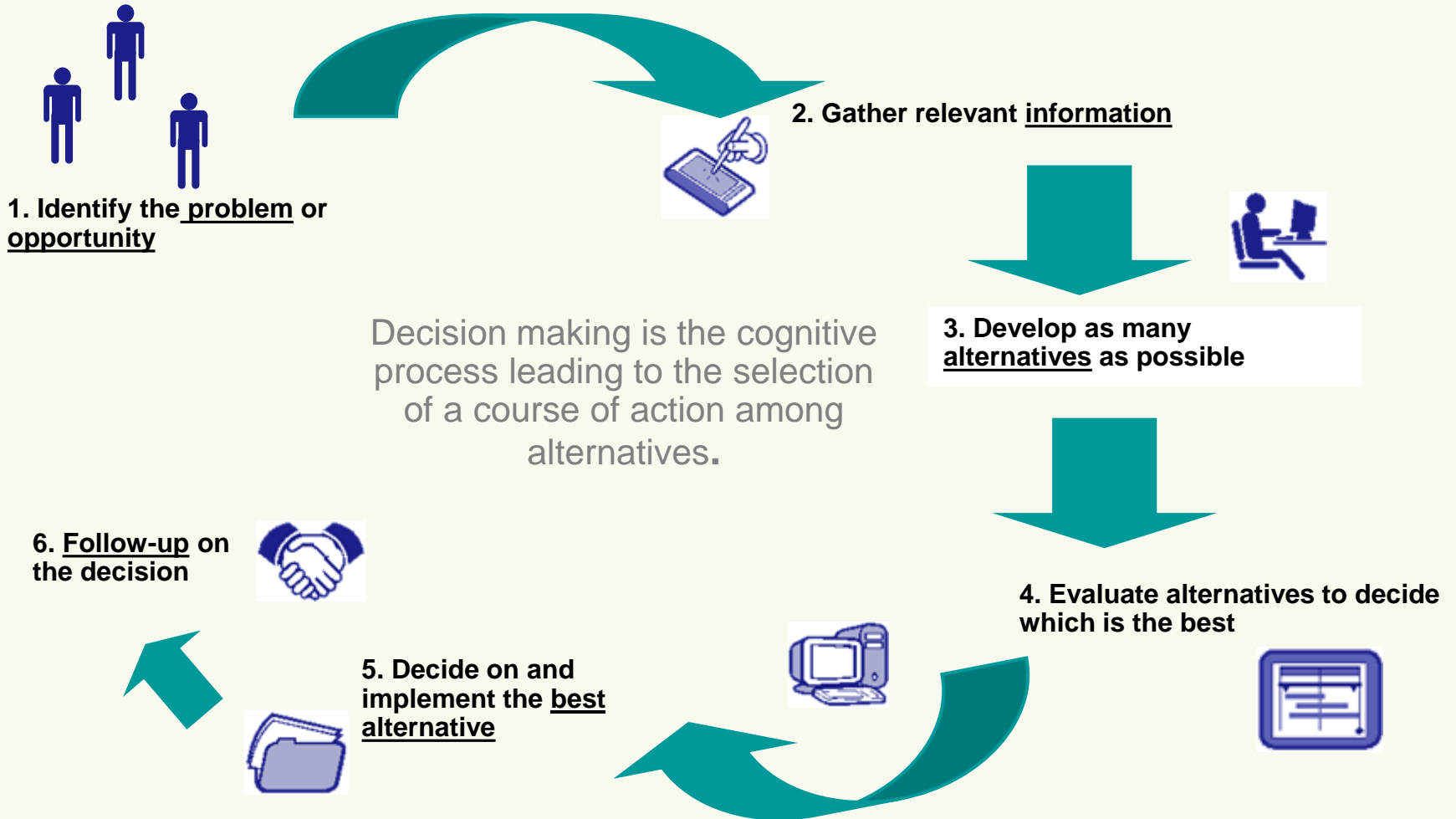
### iDecisionSupport

- Web based framework for decision support tools
- Collaborative environment where different software tools for decision making can be easily integrated
- Users can access them remotely and asynchronously
- Developed at Ropardo S.R.L. starting back in 2006 within the CEEEX – National Research Project

GDSS is a software platform for business process management, electronic decision support, and collaboration.

GDSS is made up of collection of tools that support group processes such as brainstorming, list building, information gathering, voting, organizing, prioritizing, and consensus building

# Decision Process



## Strategic, Tactical and Operational Decision

**Strategic decisions** (examples: to focus efforts on a new product or to increase production output)

- They affect the long-term direction of the entire company, and are typically made by top managers.
- These types of decisions are often complex and the outcomes uncertain, because available information is often limited.

**Tactical decisions** (examples: to provide an incentive plan to employees to encourage increased production)

- They focus on more intermediate-term issues, and are typically made by middle managers.
- The purpose of decisions made at this level is to help move the company closer to reaching the strategic goal.

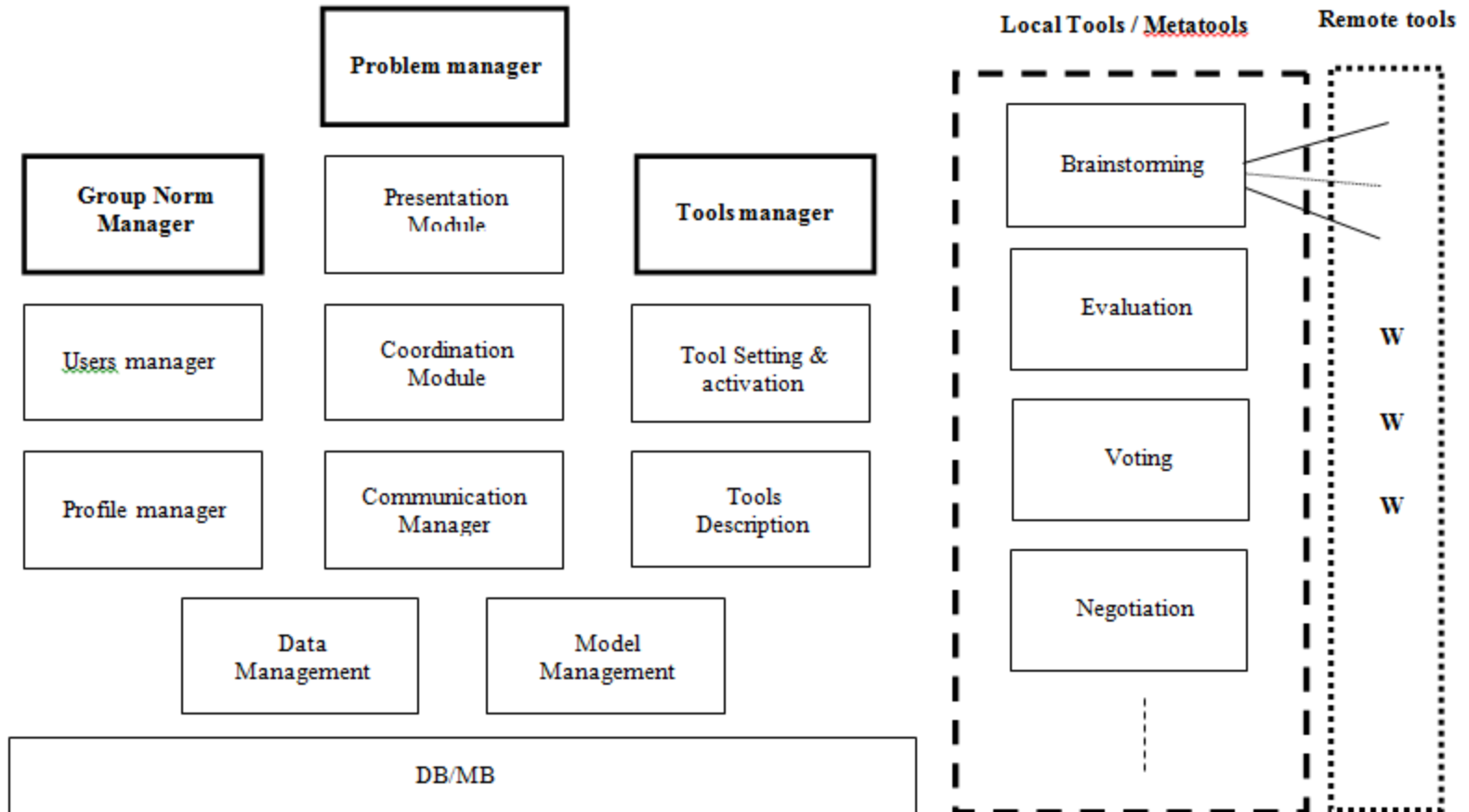
**Operational decisions** (examples: scheduling employees, purchasing raw materials needed for production)

- They focus on day-to-day activities within the company and are typically made by lower-level managers.
- Decisions made at this level help to ensure that daily activities proceed smoothly and therefore help to move the company toward reaching the strategic goal.

# iDS Concepts



# iDS Architecture



## iDS Tools

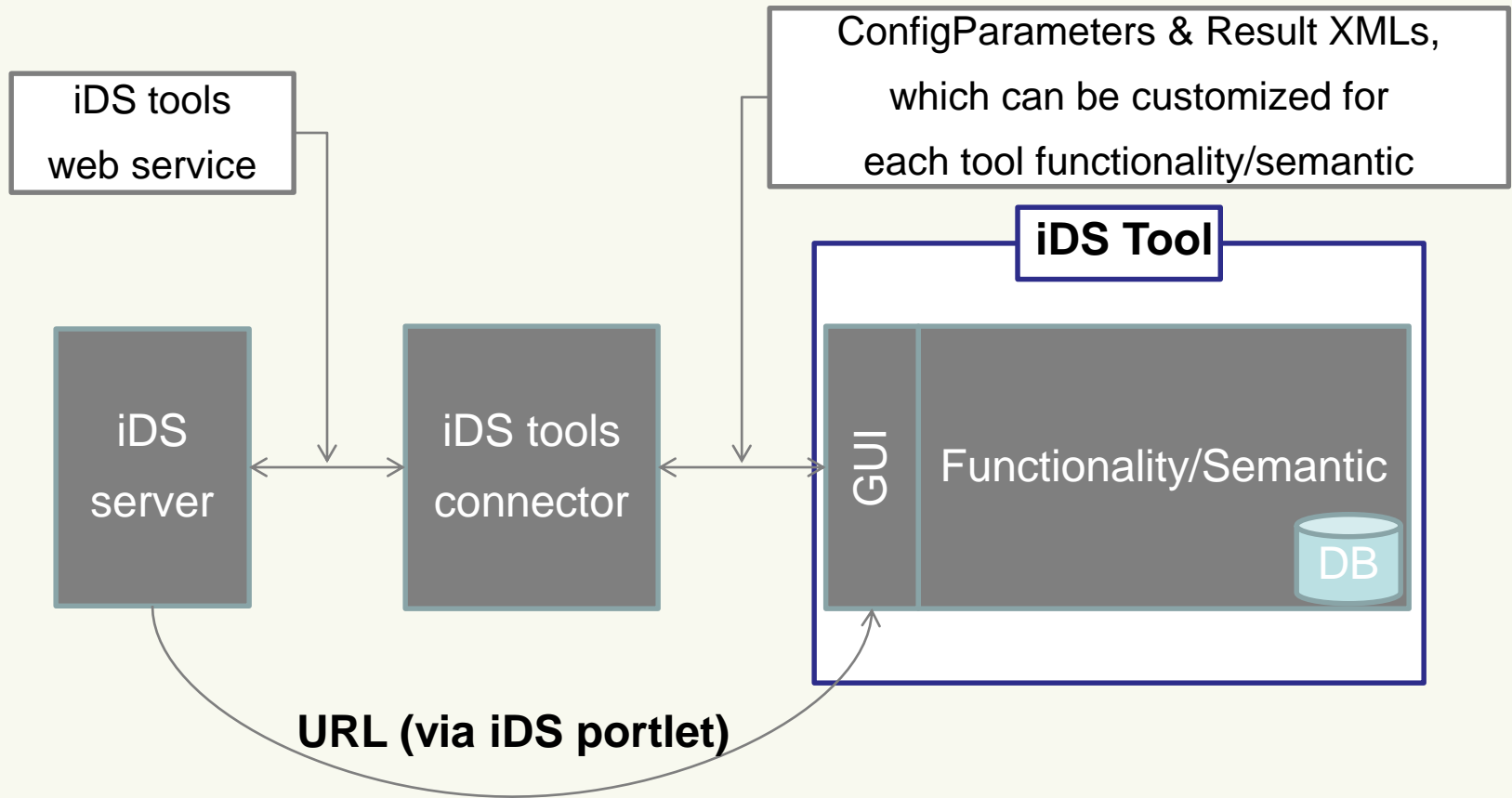
### GDSS Tools

Each tool focuses on a specific aspect of group collaboration, such as idea generation, evaluation, organization, and exploration.

- Categorizer
- Vote
- Topic commenter
- Electronic brainstorming
- Alternative analysis
- Group outliner
- Survey



# iDS Tools



## iDS Tools - API

### Config Parameters (XML)

Defines the XML tags (initial-items, initial-references, optional-items, item, reference, paramValue) and attributes (uid, name, value)

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<paramSet version="2.0">
  <initial-items>
    <item uid="1300109156328"><![CDATA[Issue 4]]></item>
    <item uid="1300109156329"><![CDATA[Tee]]></item>
  </initial-items>
  <initial-references/>
  <paramValue name="voteType" value="2"/>
  <paramValue name="appendIssue" value="false"/>
  <paramValue name="anonymous" value="false"/>
  <paramValue name="importFromPred" value="false"/>
</paramSet>
```

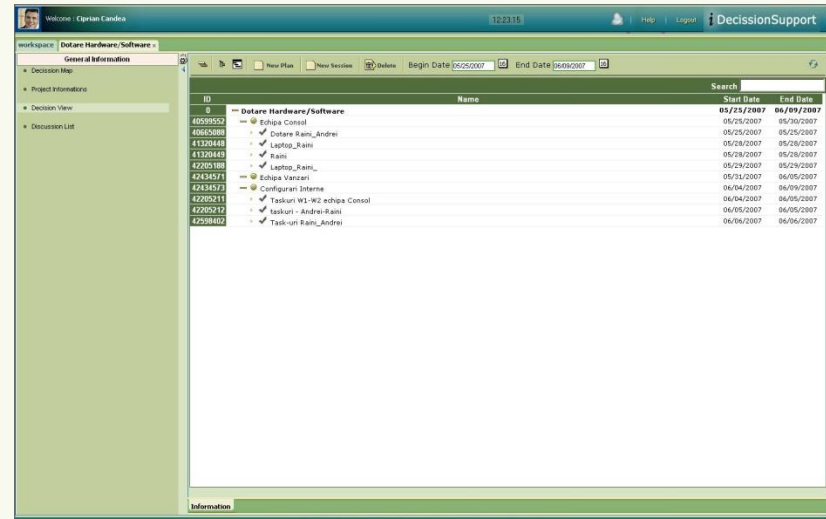
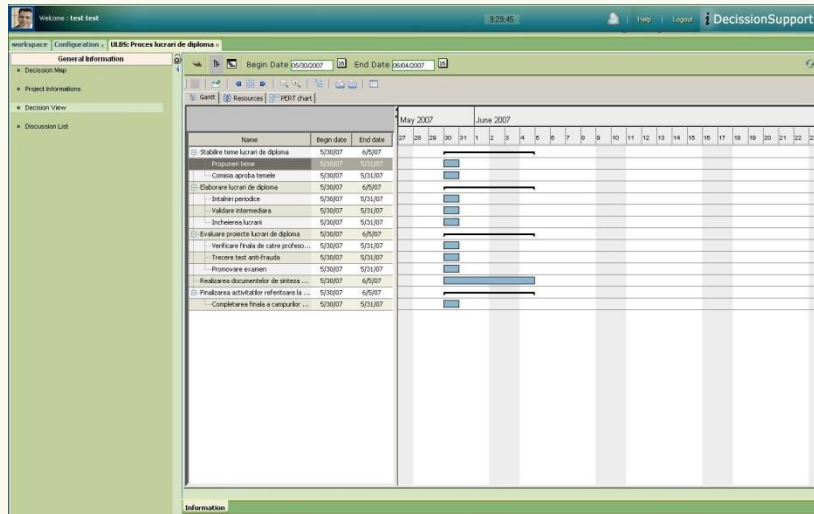
# iDS Tools - API

## Results (XML)

Defines the XML tags (tool, participants, items, etc.) and attributes (uid, name, content, toolName, etc.)

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<tool anonymous="false" toolName="Voting Tool" toolType="vote" type="yesno">
  <!-- Tool participants -->
  <participants>
    <participant name="Ciprian Candea" uid="88571904"/>
    <participant name="Claudiu Zgripcea" uid="88571905"/>
    <participant name="Gabriela Candea" uid="88571906"/>
    <participant name="Kostas Efthymiou" uid="88571907"/>
    <participant name="Marius Staicu" uid="88571908"/>
  </participants>
  <!-- tool references -->
  <references/>
  <!-- tool items -->
  <items>
    <item author="" parentUid="" type="" uid="1307294670798">
      <content><![CDATA[VffReviewDemo_Compa_H]]></content>
      <action participant="Ciprian Candea">N/A</action>
      <action participant="Claudiu Zgripcea">N/A</action>
      <action participant="Gabriela Candea">N/A</action>
      <action participant="Kostas Efthymiou">N/A</action>
      <action participant="Marius Staicu">N/A</action>
    </item>
    <item author="" parentUid="" type="" uid="1307294670799">
      <content><![CDATA[VffReviewDemo_Compa_X]]></content>
      <action participant="Ciprian Candea">N/A</action>
      <action participant="Claudiu Zgripcea">N/A</action>
      <action participant="Gabriela Candea">N/A</action>
      <action participant="Kostas Efthymiou">N/A</action>
      <action participant="Marius Staicu">N/A</action>
    </item>
  </items>
</tool>
```

# iDS Screens



Project View

# iDS Screens

The screenshot displays the 'iDecisionSupport' web application interface. At the top, a navigation bar shows the user 'Ciprian Candea' and the time '12:27:51'. The main workspace is titled 'Dotare Hardware/Software' and contains a 'General Information' tab. The interface includes several sections: 'Attachments' with an 'Extend' button; 'General' information fields for 'Session name' (Laptop\_Raini), 'Session author' (Ciprian Candea), and dates; a 'Description' text area; 'Members List' and 'Predecessors' tables; and 'Tool Selection' for 'Commitment tool' and 'Session tool' (Vote), each with associated dates and times. At the bottom, there is a 'GDSS Discussion List' section with an 'Add Post' button and an 'Attachment' link. A footer note reads: '(c) 2003-2007 Design and Implementation by Wittmann & Partner Computer Systems Sibiu'.

Decisional Session

# iDS Screens

workspace **Prezentare tool-uri** x

Welcome : test test 11:17:56 Help Logout DecisionSupport

Initial state Commitment Session x

Vote Results

	Pro	Contra
1. shopping online	2	3
2. search engines	3	4

workspace **Prezentare tool-uri** x

Welcome : test test 11:12:50 Help Logout DecisionSupport

Initial state Commitment Session x

Agree / Disagree  
SA - Strongly Agree; A - Agree; D - Disagree; SD - Strongly Disagree

	SA	A	D	SD
1. shopping online				
2. search engines				
3. hot mail				
4. maps				
5. checking ski reports				
6. online bank statements				
7. online tickets				

10 - Point Scale

	1	2	3	4	5	6	7	8	9	10
1. shopping online										
2. maps										
3. online bank statements										
4. job search										
5. travel arrangements										
6. travel map										

GDSS Discussion List Attachment Author Posted

Information

(c) 2003-2006 Design and Implementation by Wittmann & Partner Computer Systems Sibiu

Voting Tool

# iDS Screens

The screenshot displays the iDS interface with a user profile for Ciprian Candea and a session titled 'Task-uri Raini\_Andrei'. The session log contains 14 entries (0-13) detailing technical discussions and tasks. A 'Categorizer' window on the right shows a list of categories: 'All', 'Raini (3)', 'Andrei (4)', and 'Echipa Raini-Andrei (6)'.

Initial state	Commitment	Session x	Reports x
Session Task-uri Raini_Andrei Role facilitator			
Current Category : All			
0	Echipa Raini-Andrei	configurare si portare server hosting. stam cam de mult in aceasi faza si nu e ok!	
1	Raini	VPN - sa utilizam o solutie care sa ne permita conectarea a mai multe pers. din afara simultan.	
2	Andrei	Configurarea unui server domino pentru send/receive email de pe doua sau mai multe domenii web	
3	Echipa Raini-Andrei	Database - pe postgree am avea nevoie de o procedura de backup - ceva automat - un thirdparty software etc.	
4	Echipa Raini-Andrei	monitorizare servere interne cu Nagios - nu stiu ce anume...	
5	Andrei	creare script pe linux pt.: creare user nou de hosting si webmail - ca sa fie mai simplu de creat de personal non tehnic	
6	Andrei	acces host4u email de pe outlook: tot timpul sunt pb cu clientii din cauza cum este securizat serverul. un script automat de config. outlook ar fi de ajutor	
7		web mail: se misca greu - zice alabala	
8	Echipa Raini-Andrei	web mail: instalare un filtru de spam si poate un antivirus!	
9	Echipa Raini-Andrei	cum poti de pe vnc sau similar sa lucrezi dar sa si poti tiparii doc. pe imp. locala - pt. ifin in special	
10	Raini	iManagement sa functioneze pe Linux	
11	Raini	procedura set up vpn la clienti ifin - sa poata seta vpn-ul si o persoana mai putin formalizata cu linux! nu stiu daca se poate	
12	Andrei	investigare solutie alternativa messenger intern care sa functioneze pe Vista (!) si Linux. (jabber based, cu client la alegere). suport pentru conferinte.	
13	Echipa Raini-Andrei	topografia retelei (schema) sa ne fie clar ce si cum (+eventual labeling mai bun la cabluri).	

Categorizer

# iDS Screens

Welcome : Ciprian Candea 12:28:46 [Help](#) [Logout](#)

workspace **Dotare Hardware/Software** x

**General Information**

- Decision Map
- Project Informations
- Decision View
- Discussion List

Initial state | Commitment x | Session x | Reports x

Session **Laptop\_Raini\_** Role **facilitator**

10-Point scale

Nr.Crt	Total	Issues
0.	20 Points	Satellite Pro A120-189, Intel Core Duo T2250, 1,024 MB, 80GB (5.4 rpm), Serial ATA, 15.4" WXGA TFT, DVD SM DL, 802.11a/b/g, € 768 garantie 24
1.	19 Points	Satellite A200-1CR, Pentium Dual Core T2080 (1.73GHz), 512+ 512MB DDR2 (667MHz), 120GB, 15.4" WXGA CSV VA, DVD-SM, Intel 943GML, 11b/g, BT, No TPM, Vista Basic, 2yw € 699 garantie 12
2.	19 Points	AS5612ZWLMi, 15.4" WXGA Acer CrystalBrite w OrbiCam, Pentium® Dual Core T2060 1.6GHz, 1GB (2x512MB) DDRII 533, 120GB 5.4K SATA, DVD-RW SuperMulti 8X, 802.11b/g, 5 in 1, 6CELL, Vista™ Home Premium € 630 garantie 12
3.	18 Points	TECRA A8-103, CORE2 DUO T5500(1.66GHZ),512+512MB DDR2 (533MHZ),100GB(5400RPM) SATA,15.4" WIDE XGA VA,DVD-SUPER-MULTI (+-R DL),INTEL 945GM,INTEL 11A/B/G (13CH),BT,VISTA 32BIT BUSINESS,3 YEARS WARRANTY € 817 garantie 36
4.	17 Points	UE1HTRR Lenovo Thinkpad R60 Duo 2 T5500 (1.66GHz), 512MBx2, 80GB/5400rpm SATA, Intel Media Accelerator 950 up 128MB, 15" XGA TFT, DVD-RW/CD-RW(Multiburner) Dual Layer, Modem, Gigabit, Centrino Duo 11a/b/g, Bluetooth, Security Chip, FPR, WXP Pro, Warranty: 1 year \$1,145

Vote Results

	Issue 0	Issue 1	Issue 2	Issue 3	Issue 4
Ciprian Candea	6	5	5	6	6
Claudiu Zgripcea	8	8	7	8	3
Marius Staicu	5	7	6	5	8
<b>Total Results</b>	<b>19 Points</b>	<b>20 Points</b>	<b>18 Points</b>	<b>19 Points</b>	<b>17 Points</b>

Information

## Vote Results



## Ropardo S.R.L. news



Web:  
<http://research.ropardo.ro>



Blog:  
<http://blog.ropardo.ro>



Telephone:  
**+40 269 231 037**



E-Mail:  
[office@ropardo.ro](mailto:office@ropardo.ro)

**Thank you !**



**Str. Reconstrucției 2A  
550129, Sibiu**

**Tel/fax :  
+40 (269) 231037**

**E-mail:  
office@ropardo.ro**