SAP UI at Volvo

Fredrik Borlie, SAP Architecture team
The Volvo Group is one of the world’s leading manufacturers of trucks, buses, construction equipment and marine and industrial engines. The Volvo Group also provides complete solutions for financing and service.
Volvo SAP Collaboration
Volvo Group & SAP
Joined Innovation Framework that was set 2012

Executive Sponsorship Program
Magnus Carlander (Volvo) / Dr. Jan Grasshoff (SAP)

Customer Innovation Roadmap
Project & Steering Committee
Christine & Lars B(Volvo) / Anders & Kjell (SAP)

- HANA
  Volvo CE Pilot Technology Shift
- Mobility
  Use Case / Deep Dive Workshop
- SLO
  Workshop / Project
- UX / UI
  Co-innovation Project
- GPO Solutions
  Project/ Roadmap Workshop
- SACCellerate Project
Volvo Group & SAP
Joint Innovation Roadmap later in 2013

Executive Sponsorship Program
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Customer Innovation Roadmap
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HANA  Mobility/UX  SLO
Joint Innovation Roadmap (JIR) Update 2015

Executive Sponsorship Program
Olle Högblom (Volvo) / Tanja Rueckert (SAP)

Customer Innovation Roadmap
Project & Steering Committee
Christophe L. & Pascal C. (Volvo) / Anders B. & George D. (SAP)

- HANA
  Technology Shift
- UX/Mobility
  Strategy
- SLO / Finance
  Strategy / Project
- Cloud
  Awareness
Background and analysis
89% of all users accesses three systems or less

76,970 unique user accounts

out of 152,160 total accounts

supported by ~34,200 SAP GUI workstations

# Productive SAP Systems

SAP User Account Statistics

*September 2015

SAPSA IMPULS November 18th,
Fredrik Borlie Volvo IT
## Total # of accounts per system

Average # accounts per system  3622

<table>
<thead>
<tr>
<th>Biggest 5 systems</th>
<th>Total # Accounts</th>
<th>Smallest 5 systems</th>
<th>Total # Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP1</td>
<td>48 742</td>
<td>BIP</td>
<td>79</td>
</tr>
<tr>
<td>PPP(^1)</td>
<td>12 636</td>
<td>BMP</td>
<td>70</td>
</tr>
<tr>
<td>VRP</td>
<td>10 545</td>
<td>TSP</td>
<td>50</td>
</tr>
<tr>
<td>VCP</td>
<td>10 370</td>
<td>F02</td>
<td>28</td>
</tr>
<tr>
<td>PSP</td>
<td>10 122</td>
<td>TEP</td>
<td>21</td>
</tr>
</tbody>
</table>

\(^1\) PPP is not included in the Top 5.

*September 2015*
### User with multiple accounts

<table>
<thead>
<tr>
<th>Account in systems</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only 1 system</td>
<td>41,686</td>
</tr>
<tr>
<td>2 systems</td>
<td>15,760</td>
</tr>
<tr>
<td>3 systems</td>
<td>10,851</td>
</tr>
<tr>
<td>4 systems</td>
<td>5,316</td>
</tr>
<tr>
<td>5 systems</td>
<td>1,795</td>
</tr>
<tr>
<td>6 systems</td>
<td>653</td>
</tr>
<tr>
<td>7 systems</td>
<td>320</td>
</tr>
<tr>
<td>8 systems</td>
<td>144</td>
</tr>
<tr>
<td>9 systems</td>
<td>92</td>
</tr>
<tr>
<td>10 systems</td>
<td>52</td>
</tr>
<tr>
<td>10+ systems</td>
<td>301</td>
</tr>
</tbody>
</table>

*Note, not always the same combinations of systems ~3000 combinations*
# Usage per largest combinations

## Total

<table>
<thead>
<tr>
<th>System combination</th>
<th># use</th>
<th>% use</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP1</td>
<td>21344</td>
<td>27,73%</td>
</tr>
<tr>
<td>L1P</td>
<td>4052</td>
<td>5,26%</td>
</tr>
<tr>
<td>PP1</td>
<td>3743</td>
<td>4,86%</td>
</tr>
<tr>
<td>VRP</td>
<td>2467</td>
<td>3,21%</td>
</tr>
<tr>
<td>PPP</td>
<td>1635</td>
<td>2,12%</td>
</tr>
<tr>
<td>VCP</td>
<td>1723</td>
<td>2,24%</td>
</tr>
<tr>
<td>VRP</td>
<td>1457</td>
<td>1,89%</td>
</tr>
<tr>
<td>F05 HP1</td>
<td>912</td>
<td>1,18%</td>
</tr>
<tr>
<td>H2P HP1</td>
<td>632</td>
<td>0,82%</td>
</tr>
<tr>
<td>EBP EVC</td>
<td>516</td>
<td>0,67%</td>
</tr>
<tr>
<td>FP2 HP1</td>
<td>444</td>
<td>0,58%</td>
</tr>
<tr>
<td>HP1 PPP</td>
<td>442</td>
<td>0,57%</td>
</tr>
<tr>
<td>HP1</td>
<td>21344</td>
<td>27,73%</td>
</tr>
<tr>
<td>L1P</td>
<td>4052</td>
<td>5,26%</td>
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<tr>
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<td>632</td>
<td>0,82%</td>
</tr>
<tr>
<td>EBP EVC</td>
<td>516</td>
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</tr>
<tr>
<td>FP2 HP1</td>
<td>444</td>
<td>0,58%</td>
</tr>
<tr>
<td>HP1 PPP</td>
<td>442</td>
<td>0,57%</td>
</tr>
</tbody>
</table>
## Usage per largest combinations

With Gui

### System combination

<table>
<thead>
<tr>
<th>#system</th>
<th>System combination</th>
<th># use</th>
<th>% use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HP1</td>
<td>3668</td>
<td>11,87%</td>
</tr>
<tr>
<td>1</td>
<td>VCE</td>
<td>423</td>
<td>1,37%</td>
</tr>
<tr>
<td>1</td>
<td>FP2</td>
<td>384</td>
<td>1,24%</td>
</tr>
<tr>
<td>1</td>
<td>F05</td>
<td>352</td>
<td>1,14%</td>
</tr>
<tr>
<td>1</td>
<td>PP1</td>
<td>186</td>
<td>0,60%</td>
</tr>
<tr>
<td>1</td>
<td>VCP</td>
<td>169</td>
<td>0,55%</td>
</tr>
<tr>
<td>1</td>
<td>P10</td>
<td>131</td>
<td>0,42%</td>
</tr>
<tr>
<td>1</td>
<td>VRP</td>
<td>110</td>
<td>0,36%</td>
</tr>
<tr>
<td>1</td>
<td>BLP</td>
<td>107</td>
<td>0,35%</td>
</tr>
<tr>
<td>1</td>
<td>F0C</td>
<td>105</td>
<td>0,34%</td>
</tr>
</tbody>
</table>

### System combination

<table>
<thead>
<tr>
<th>#system</th>
<th>System combination</th>
<th># use</th>
<th>% use</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>F05 HP1</td>
<td>826</td>
<td>2,67%</td>
</tr>
<tr>
<td>2</td>
<td>PPP PSP</td>
<td>535</td>
<td>1,73%</td>
</tr>
<tr>
<td>2</td>
<td>HP1 VCP</td>
<td>528</td>
<td>1,71%</td>
</tr>
<tr>
<td>2</td>
<td>FP2 HP1</td>
<td>431</td>
<td>1,39%</td>
</tr>
<tr>
<td>2</td>
<td>CMP HP1</td>
<td>385</td>
<td>1,25%</td>
</tr>
<tr>
<td>2</td>
<td>ALP HP1</td>
<td>298</td>
<td>0,96%</td>
</tr>
<tr>
<td>2</td>
<td>F13 HP1</td>
<td>284</td>
<td>0,92%</td>
</tr>
<tr>
<td>2</td>
<td>H2P HP1</td>
<td>283</td>
<td>0,92%</td>
</tr>
<tr>
<td>2</td>
<td>HP1 VRP</td>
<td>248</td>
<td>0,80%</td>
</tr>
<tr>
<td>2</td>
<td>HP1 P10</td>
<td>242</td>
<td>0,78%</td>
</tr>
</tbody>
</table>

### System combination

<table>
<thead>
<tr>
<th>#system</th>
<th>System combination</th>
<th># use</th>
<th>% use</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>HP1 PPP PSP</td>
<td>1385</td>
<td>4,56%</td>
</tr>
<tr>
<td>3</td>
<td>HP1 VBP VRP</td>
<td>714</td>
<td>2,35%</td>
</tr>
<tr>
<td>3</td>
<td>CMP F13 HP1</td>
<td>471</td>
<td>1,55%</td>
</tr>
<tr>
<td>3</td>
<td>H2P HP1 VCE</td>
<td>380</td>
<td>1,25%</td>
</tr>
<tr>
<td>3</td>
<td>HP1 VCP VRP</td>
<td>314</td>
<td>1,03%</td>
</tr>
<tr>
<td>3</td>
<td>ALP PPP PSP</td>
<td>191</td>
<td>0,63%</td>
</tr>
<tr>
<td>3</td>
<td>HP1 VCE VCP</td>
<td>160</td>
<td>0,53%</td>
</tr>
<tr>
<td>3</td>
<td>EBP HP1 VCE</td>
<td>152</td>
<td>0,50%</td>
</tr>
<tr>
<td>3</td>
<td>BWP HP1 P10</td>
<td>149</td>
<td>0,49%</td>
</tr>
<tr>
<td>3</td>
<td>HP1 PP1 VCP</td>
<td>125</td>
<td>0,41%</td>
</tr>
</tbody>
</table>

### System combination

<table>
<thead>
<tr>
<th>#system</th>
<th>System combination</th>
<th># use</th>
<th>% use</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ALP HP1 PPP PSP</td>
<td>985</td>
<td>3,20%</td>
</tr>
<tr>
<td>4</td>
<td>HP1 VBP VCP VRP</td>
<td>829</td>
<td>2,69%</td>
</tr>
<tr>
<td>4</td>
<td>H2P HP1 PPP PSP VCP</td>
<td>239</td>
<td>0,78%</td>
</tr>
<tr>
<td>4</td>
<td>HP1 VPP PSP VCP</td>
<td>141</td>
<td>0,46%</td>
</tr>
<tr>
<td>4</td>
<td>F05 HP1 PPP PSP</td>
<td>117</td>
<td>0,38%</td>
</tr>
<tr>
<td>4</td>
<td>EBP H2P HP1 VCE</td>
<td>107</td>
<td>0,35%</td>
</tr>
<tr>
<td>4</td>
<td>EBP F05 HP1 VCE</td>
<td>99</td>
<td>0,32%</td>
</tr>
<tr>
<td>4</td>
<td>FP2 HP1 VBP VRP</td>
<td>86</td>
<td>0,28%</td>
</tr>
<tr>
<td>4</td>
<td>EBP HP1 PPP PSP</td>
<td>82</td>
<td>0,27%</td>
</tr>
<tr>
<td>4</td>
<td>F05 FP2 HP1</td>
<td>79</td>
<td>0,26%</td>
</tr>
</tbody>
</table>
Facts about SAP usage at Volvo

- ERP mostly access via SAPGUI
  - Some web accesses does exist
- HR ESS and MSS mainly via Portal and ABAP Web Dynpros
  - Managers may access via Gui
- SAP BW mainly via SAP BEx
  - Business Objects also used
  - Web Bex also used

Which leads to the conclusion…
Typical ”usage pattern”

HR

ERP

BW
UI Vision 2020
Wanted typical "usage pattern"
SAP UX Strategy

The SAP User Experience Strategy
Evolution

New Applications

Existing Applications

SAP Fiori UX

NEW

RENEW

ENABLE

UX Design Services

This is the current state of planning and may be changed by SAP at any time.
What does it really mean for Volvo?

- Fiori applications are here to stay
- All solutions (~100) will have their own Fiori Launchpad
- Solution teams must learn how Fiori applications work
- Common Fiori Launchpad under investigation, currently aiming at Portal
- No magic exist to convert existing SAP Gui applications
General SAP Usage Types with User Interface

- **Advanced Mobile device**
  - Native/Hybrid application
- **Advanced Desktop**
  - NWBC / Hybrid
- **Mobile device**
  - SAP UI5 / Fiori
- **Desktop**
  - Web Dynpro/ SAP UI5 / Fiori

UI Complexity:
- Task complexity
  - Casual
  - Often
UI technology matrix

Simple

Task complexity

Hybrid app

Native app
- SAPGUI for Windows
- POWL

SAPUI5 app
- Fiori

Fiori app
- Web Dynpro
- SAPGUI for HTML

Screen Personas

Challenges:
- Often
- Casual

Advanced

UI Complexity
Volvo User Experience Strategy

- Improve User Experience
- Enable cross system access -> “One Solution”
- Simplify access to the “apps”
- Enhance or replace “apps”
- Use Standard Fiori apps
Smart Launchpad!

Volvo Group Headquarters
SAPSA IMPULS November 18th,
Fredrik Borlie Volvo IT
Challenges

- SAP centric user vs Non-SAP centric entry users
  - How to distribute a single Fiori app to other Navigation Frameworks?
- Internal users vs External users
  - Authentication in two directories
  - Security regulations
- Single Sign On
  - Top domain policies (.net/.com)
- Web technology mindset
  - Ports (http/https)
  - HTML
  - Javascript
UI Roadmap
As is analysis (Sept 20th, 2015)

- SAP Gui 7.30
  - 34 190 Workstations
  - 29 718 Unique users

- SAP UI for Maintenance (7.40)
  - 26 workstations
  - 25 users

- SAP Gui For MPA 7.20
  - To be upgraded to SAP UI (7.40) 2015-10
Volvo SAP UI Roadmap (main)
~100 solutions should follow
Volvo SAP UI Roadmap Step 1

- **Starting Q1-2016**
  - Move logon focus from SAP Logon to NWBC
  - Still use same menus
  - Still use ”SAP GUI” screens
- **Concerns**
  - Web links not being integrated in NWBC, they open in Internet Explorer
Volvo SAP UI Roadmap Step 2

- **Step 2 – 1-5 years**
  - Enable new NWBC config string to use new Horizontal Navigation
  - Update application with new UI technologies
    - POWLs
    - ABAP Web Dynpros
    - Sidepanel

- **Concerns**
  - Knowledge to build and maintain
  - Still no clear cross system/solution navigation
Volvo SAP UI Roadmap Step 3

- Step 3 – 5-10 years
  - Move to Fiori Launchpad navigation
  - Central Fiori Application reading remotely generated catalogs
    - All solutions will produce their own "Catalog"

- Concerns
  - Not clear what technology to host central Launchpad. Current plan covers Java stack, might be changed depending on evolution of FLP
Two SAP UI Packages

- **SAP UI for Volvo**
  - Updated once or twice per year
  - 35,000 + workstations
  - Can only access
    - Production systems
    - with SSO
    - secure communication

- **SAP UI for Maintenance Edition**
  - Possibility to update when needed, target 2-4 times /year
  - 1,000 – 2,000 workstations
  - Can access all systems
  - Used for testing package to deploy ”SAP UI for Volvo”
Logon screens today and tomorrow
Summary

- Vision is to access all functions in Fiori Launchpad
- We will still have transactions rendering in SAPGUI for windows
- We will have Mobile Access mainly with HTML
- Business Client is the desktop UI
  - first with SAPGUI
  - Then With Business Client navigation
  - Finally run Fiori Launchpad navigation
VOLVO

Personal reflections
Reflections by Fredrik

- Screen Personas – Nice for tailored screens for the occasional user, value unclear for business users running important transactions
- POWL – unused functionality, Large potential, not so many knows about it. ”Meta workflow”
- Side Panels – Brings additional knowledge to the screen without disturbing the standard screen
- ABAP WebDynpro / Floorplan Manager applications – unused potential. Volvo are still stuck at SAPGUI level.
- Link to document describing renewed applications
  - https://uxexplorer.hana.ondemand.com/_item.html?id=10604#!/overview
Thank you.