

## Intelligent Surface Lite for ZnunyLTS

6.0.10

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## **1** Overview

Intelligent Surface provides an additional interface for your ticket system offering ticket creation using definable categories and questions. By answering the required questions your customers will provide all needed information for a quick response. Time consuming callbacks can be reduced to a minimum. Questions can require multiple answer options such as text, textfield, option selection, date selection or simply yes or no.

**Note:** Screenshots within this document might be taken using the premium verison and show features not available to the lite version.

# 2 Requirements

## 2.1 System

Intelligent Surface was tested using a MySQL database. Technically there should be no limitation regarding the used database engine and Server Operating System.

## 2.2 ITSM

Intelligent Surface does not support any features of ITSM yet. An ITSM installation has no effect on Intelligent Surface.

If you have requirements regarding ITSM integration please contact email@haschmi.de.

## 2.3 Webserver

Intelligent Surface is running on nginx and Apache 2 web servers. For Apache please follow standard system installation instructions, for nginx please use a web search for configuration or visit http://www.haschmi.de/.

Microsoft IIS was not tested and is not supported - please do not ask for support.

## 2.4 Reference Environment

This is the reference testing environments for Intelligent Surface:

- Ubuntu Linux
- nginx
- MySQL

## **3** Integration

## 3.1 Installation

Intelligent Surface is distributed as OPM package to be installed within the administration panel. All required files, database tables and setting will automatically be created. Simply login in with an administrator account, select "Admin" and then "Package Manager" from the "System Administration" block. Select your downloaded OPM package file and press the "Install Package" button.

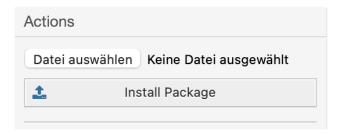


Figure 1: Package Management

The package installation will show a welcome screen which has to be confirmed. You can upgrade any existing version of Intelligent Surface without loosing any data. Please refer to to the "Upgrade" section.

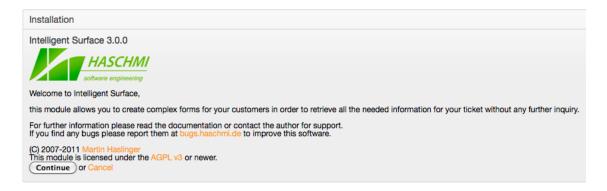


Figure 2: Intelligent Surface - Installation welcome screen

## 3.2 Upgrade

Newer versions of Intelligent Surface will again be provided as OPM packages and can be installed without loosing any existing data.

To upgrade follow the steps of the installation. Only updated files of Intelligent Surface will be installed.

**NOTE:** Although there are no reports of lost data due to upgrade yet it is recommended to create a backup before starting the process.

## 3.3 Uninstallation

Intelligent Surface can be uninstalled using the "Package Manager". Inside the "Local Repository" block choose the "Uninstall" link next to the Intelligent Surface line.

**WARNING:** All data and all files will be deleted and cannot be recovered if you decide to install Intelligent Surface later again. Also your Intelligent Surface database contents will be deleted! Please backup all is\_\* tables for later use.

Local Repository							
NAME	VERSION	VENDOR	DESCRIPTION	STATUS	ACTION		
Intelligent Surface	3.0.0	Martin Haslinger	Create tickets through forms	installed	Uninstall		



In order to finally uninstall Intelligent Surface from your system you will have to confirm the Intelligent Surface Uninstallation and Uninstall Package dialogs.

Uninstallation
Intelligent Surface 3.0.0
HASCHMI software engineering
Thank you for using Intelligent Surface,
we hope you did not encouter any problems using this module. In order to optimize this module please report any found bugs at bugs.haschmi.de. For further support or change request please feel free to contact the author.
(C) 2007-2011 Martin Haslinger This module is licensed under the AGPL v3 or newer. Continue or Cancel

Figure 4: Uninstallation dialog

Uninstall package	
Name:	Intelligent Surface
Version:	3.0.0
	Do you really want to uninstall this package?
	Uninstall package or Cancel

Figure 5: Package Uninstall dialog

## 3.4 System Upgrade

Intelligent Surface does not include direct user interface or database interactions. All layers and functions re implemented within the system framework. Therefore upgrading to newer versions of the system will not affect the functionality of Intelligent Surface as long as the API is not changed by this upgrade. Bugfix upgrades (e.g. 6.0.x) will always be safe but minor upgrades (e.g. 6.x.x) might change the API and break compatibility.

Almost all major upgrades untiul now included API changes. The following list maps Intelligent Surface versions to their supported system version.

Intelligent Surface	System					
6.0.10+	ZnunyLTS 6.0.x					
Deprecated Versions						
2.x	OTRS 2.4.x					
3.0.x	OTRS 3.0.x					
3.1.x	OTRS 3.1.x, 3.2.x					
3.2.x	OTRS 3.1.x, 3.2.x					
3.3.x	OTRS 3.3.x					
4.0.x	OTRS 4.0.x					
5.0.x	OTRS 5.0.x					
6.0.0-6.0.5	OTRS 6.0.x					

## 4 Settings

All settings for Intelligent Surface can be changed within the systems admin area. To change any settings choose "System Configuration" within the "Administration" block. In this view choose "Intelligent Surface" from the "Navigation" dropdown.

All Settings		
Intelligent Surface	Э	
OTRS		
		?
CloudService	e (1)	
<ul> <li>Core (8)</li> </ul>		
<ul> <li>Daemon (1)</li> </ul>		
<ul> <li>Frontend</li> </ul>		
<ul> <li>GenericInterf</li> </ul>	ace (1)	

Figure 6: System Configuration navigation

Below the selection box you will see the configuration options for Intelligent Surface:

- Core
  - Default Configure core features
  - Ticket Configure ticket data features
- Frontend
  - Agent Frontend configuration for agents
  - Customer Frontend configuration for customers
  - Public Frontend configuration for public access

In the next sections the configuration of all core features are described. Regarding the frontend configuration block standard scenarios are explained.

### 4.1 Core features

Choose "Default" to change any setting of the Intelligent Surface core features.

#### 4.1.1 Mail form to customer (IS::Default::MailCustomer)

On choosing "Yes" all submitted forms will be send as copy the the customer. Default value: "No"

<ul> <li>Navigation</li> </ul>
Intelligent Surface ?
✓ Core
Default (7)
Ticket (3)
✓ Frontend
✓ Agent
<ul> <li>ModuleRegistration (4)</li> </ul>
MainMenu (2)
✓ Customer
<ul> <li>ModuleRegistration (2)</li> </ul>
MainMenu (1)
✓ Public
ModuleRegistration (4)

Figure 7: SysConfig options

#### 4.1.2 Mail to customer subject - (IS::Default::MailCustomerSubject)

The provided text will be used as subject when emailing the form to the customer. This will only be used if IS::Default::MailCustomer is set to "Yes".

Default value: "Ihre Anfrage ist eingegangen"

#### 4.1.3 Default states (IS::Default::DefaultState)

This text defines the default state selected in forms. Beware that the text has to be equal to one of the states defined in your system.

Default value: "new"

#### 4.1.4 Default priority (IS::Default::DefaultPriority)

Default priority selected in forms. Beware that the provided text has to be equal to one of the defined priorities in your system.

Default value: "3 normal"

## 4.2 Agent frontend

Choose "Agent" and then "ModuleRegistration" to change the agent frontend.

#### 4.2.1 Allow agents to administrate categories and questions

Usually only agents belonging to the "admin" group can edit the categories and questions. If you want additional users without admin rights being able to edit these you have to change the "NavBar Group" property of the "Frontend::Module###AdminIS" setting. For example create a group called "is\_admin", add the user who shall administrate Intelligent Surface and change the "NavBar Group" setting to "is\_admin", too.

**WARNING:** Users which shall administrate Intelligent Surface need rw privileges in any of the assigned groups.

#### 4.2.2 Disabling the agent "Form" frontend

You might want to prevent the agents from accessing the forms. To do so uncheck the checkboxes next to "Frontend::Module###PublicIS" and "Frontend::Module###AjaxIS".

### 4.3 Customer frontend

Choose "Customer" and then "ModuleRegistration" to change the customer frontend.

#### 4.3.1 Replace standard "New Ticket" button

It is possible to replace the standard "New Ticket" button in the customer interface by a button displaying the Intelligent Surface forms. This will take two steps: renaming the Intelligent Surface Form button to "New Ticket" and disabling the standard button.

To rename the Intelligent Surface button change the property "NavBar Name" (subproperty Name of the NavBar property) of the "CustomerFrontend::Module###PublicIS" item from "Forms" to "New Ticket". In order to place the Forms button on the same position as the standard "New Ticket" button change "NavBar Priority" to "100" and "NavBar AccessKey" to "n".

Now the standard "New Ticket" button has to be disabled. Within SysConfig main page search for the "CustomerTicketMessage" item. The search will result in another block called "Frontend::Customer::ModuleReg (customer frontend config of the ticket module). Uncheck the checkbox next to "CustomerFrontend::Module###CustomerTicketMessage".

#### 4.3.2 Disabling the customer frontend

To disable the forms for customers uncheck the checkboxes next to "CustomerFrontend::Module###PublicIS" and "CustomerFrontend::Module###AjaxIS".

## **5** Administration

In order to administrate the categories, questions and mappings of Intelligent Surface you need to be in the admin group. You will see the additional item "Admin" within the "Form" group of the main menu.

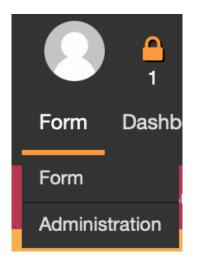


Figure 8: Main menu with admin rights

Usually it is a good practice to layout a concept of your categories and questions first. Afterwards you should copy this to Intelligent Surface starting with the categories going on with the questions and finally map your questions to dynamic fields if required.

## 5.1 Categories

In order to edit the categorie please select "Administration" from the "Form" menu. You will then see a listing of your current category tree. There will always be a category "–Global–" which is a placeholder for questions to be shown for every category. The number in brackets after the category name states the number of currently defined questions within that category.

When selecting a category the details with possibility of editing are shown on the right side. It will list all questions defined within this category.

#### 5.1.1 Add/edit category

To add a category please select the "Add Category" action in the "Category Tree" panel. Categories consist of a name and a sorting. The sorting defines the order of appearance in the category selection combo box inside the form. Please take into account that the name is not unique. For each category you have to select a mapping queue inside your system. As premium features you can optionally you can define the category to be a subcategory of another one. The final form in this case will not be shown to the user until he selected values for all requested subcategories. A sample for this could be "Landline" and "Mobile" as subcategories to "Telephone". You can also define whether this category shall be hidden in customer and public forms and only be shown the agents or using a direct link. Defining a group will limit access to users within that group.

## **Intelligent Surface - Administration**

Category Tree
Question Search
Global (1)
Printer (0)
✓ Telephone (0)
Landline (0)
Mobile (0)
Add Category



#### 5.1.2 Delete category

When editing a category the button "delete" will delete it. You will be asked if are you sure to delete the selected category.

**WARNING:** Deleting a category will also delete all contained questions! If the category you deleted had subcategories, these categories will now be subcategories of the top category of the one you just deleted.

## 5.2 Questions

The questions you will define are the key ingredients of the form you are creating. Each question will be either mapped to a category or be a global question.

#### 5.2.1 Add/edit question

To create a new question use the button "Add Question" above the question listing when editing a category. Any question consists of a mandatory name, text, sorting and type. The name of the question has to be unique within its category with which it forms unique id. The question field defines the text of the question presented to the user and the optional help text can give additional hints filling in the answer. The sorting will define the ordering of the question in the resulting form. Beware that questions of the top categories will also be displayed. Therefore it is advisable to use bigger steps for sorting, e.g. 100-199 global questions, 200-299 building related questions. Topical blocks are usually easier to use then unsorted question orders. Each question can be optional or mandatory. The category and subquestion fields are not editable and predefined by the link you previously used. There are various question types you can use:

- yes/no A simple yes/no question visualized by a checkbox. With every yes/no question you can define subquestions. Beware that the subquestions will only be shown if the checkbox is checked, so be aware to phrase your question the right way.
- Text A single line text box for answering will be shown. Within the premium version this can be limited by a regex expression

Det	ails									
	Add Question									
	QUESTION	TOP	SORTING	TYPE	MAPPINGS	Α	CTION	IS		
	printer_serial		1	text()			Ľ	ര	Ш.	
		* Nam	e: Printer							
		* Sorting	9: 1							
		Group	p: 🔁							
			Limit access to this group (enter n	ame of one group)						
		Queu	e: Postmaster 📀							
		Subcategory c	f: 😧							
			Hide Category in Customer/Pu	ublic Tree						
		Direct Lin	k: Admin - Customer - Public							
			Save Delete							

Figure 10: Categories

Det	ails	
	Add category	
	* Name:	
	* Sorting:	
	Group:	<b>O</b>
		Limit access to this group (enter name of one group)
	Queue:	Postmaster 3
	Subcategory of:	<b>O</b>
		Hide Category in Customer/Public Tree
		Save

Figure 11: Add a category

- Textarea A multi line text box for answering will be shown
- Choice A dropdown with option values will be shown. You will have to define the options comma separated next to the type dropdown
- Date A date chooser will be shown

**HINT:** Example regex: Only numbers: d+ Only Numbers with optional float: d+(. d+)? Only Uppercase: [A-Z]+

If you have defined a yes/no question you will see an additional "Add subquestion" link next to the question which allows you to create the subquestions to this question. If subquestions exist you can no longer change the question type.

**WARNING:** Intelligent Surface will always try to prefill all questions with data available from the current users properties. That means choosing "UserPhone" as question name will automatically fill the answer box with the users phone number as initial value.

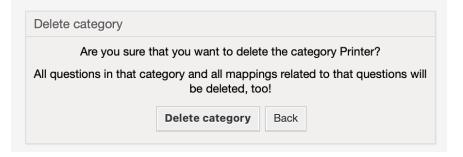


Figure 12: Delete category

Details	
* Name:	printer_serial
* Question:	Printer serial
Help text:	Serial Number is on silver label on side of device
* Sorting:	1
Optional:	Question is optional
Answer type:	Text 3 Regex
Category:	Printer
Subquestion of:	
	Subquestions can only be added to yes/no questions. If subquestions exists to a yes/no question, the answer typ cannot be changed. If Choice was choosed as answer type, please provide comma separated answers.
	Save

Figure 13: Edit question

#### 5.2.2 Delete question

You can delete any question by clicking the "delete" link next to it in the overview. You will be asked if you are sure to delete the selected question. If the questions has subquestions these will be subquestions of the deleted questions top question afterwards.

WARNING: All mapping assigned with the question will also be deleted.

#### 5.2.3 Search question

As the catalog of your questions might increase with time you can search for specific questions. Please use the "Question Search" text field within the "Category Tree" to do so. Intelligent Surface can search within question names and texts and will search for non-exact hits.

#### 5.3 Mappings

Every question in Intelligent Surface can be mapped to a dynamic field or the ticket title. These properties of the resulting tickets will automatically be set to the answers of the questions.

Delete question							
	Are you sure that you want to delete the question printer_serial? All mappings to this question will also be deleted!						
Delete question Back							

Figure 14: delete question

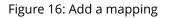
Category Tree
serial
Printer <b>serial</b> (printer_serial in Global)
Serial (mobile_serial in Global)
✓ Telephone (0)

Figure 15: Search questions

#### 5.3.1 Add/edit mappings

Please use the "Add Mapping" icon in the question table of a category to define a new mapping. As not all questions are always shown the target field can be used multiple times for mappings.

Details			
Add mapping			
	Field:	title	0
		Save	



#### 5.3.2 Delete mapping

Use the "delete" icon next to a mapping in the question table to delete it. You will be asked if you are sure to do so.

Details

Are you sure that you want to delete the mapping mobile\_serial (Mobile) => title?

 Delete mapping
 Back

Figure 17: Delete mapping

## 6 User interface

This chapter describes the usage of Intelligent Surface within the customer or public interface. A form with your previously defined categories and questions will be shown to your users.

### 6.1 Category selection

As a first step the user has to choose one of the categories and subcategories you have defined for your Intelligent Surface system. If subcategories exists the user will be requested to select one of these. After the category selection is finished the questions will be displayed within the questions block. All these steps do not require reloading the page as they use ajax technology.

Example Company
Intelligent Surface - Formular
Kategorie wählen 💿

Figure 18: Form - categories

### 6.2 Question block

After selecting the category and all requested subcategories the questions will be shown. All possible values are filled from the customer account data. These data are changeable in order to write tickets for third persons. Mandatory and optional questions can be easily distinguished as their visualisation follows the standard user interface. Additionally to the defined questions the user can attach a file which might be useful for resolving the reported ticket.

* Name:	
★ E-Mail:	
★ Printer serial:	
	Serial Number is on silver label on side of device
* Auwahl treffen:	a 📀
	Bitte auswahl
* Priorität:	3 normal
* Status:	new 📀
Datei anhängen, z.B.	Datei auswählen Keine Datei ausgewählt +
Screenshot:	Senden
	Senden

Figure 19: Form - questions

### 6.3 Form within agent interface

If you are viewing the Intelligent Surface form as agent it will embed into the agent view just like any other agent module. The user values will not be pre-filled but are able the search for existing user by entering some letters into the name field. The found users will be shown below the name

Intelligent Surface - Form		
Printer S Questions		
	* Name:	
	* Email:	
	* Printer serial:	
		Serial Number is on silver label on side of device
	★ Auwahl treffen:	a 😮
		Bitte auswahl
	* Priority:	3 normal 3
	* State:	new 😮
	Attach file, e.g. screenshot:	Datei auswählen Keine Datei ausgewählt +
		Send

Figure 20: Form - Agent interface

textbox. By clicking on one its data will be copied to the form and the search results removed.

* Name:	ir 💿 🗸	
* Email:	"Irgend Jemand" <some@haschmi.de></some@haschmi.de>	

Figure 21: Form - Agent user search

# 7 Support

For any further support please contact the author at email@haschmi.de or visit https://www.haschmi.de We also offer installation, configuration and training on Intelligent Surface, priority feature development for Intelligent Surface, consulting and individual module development.

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