v1.14_Portal Constructor

Description

The WEB portal is included into the SoftWLC project to implement the Hotspot clients authorization model. An unknown user can connect to an access point without getting a login and a password in advance. But if he or she tries to access the Internet via a browser, he will be redirected to a WEB portal page where authorization or credentials obtaining (for example, via SMS) can be performed. During authorization, a user can see advertisement banners customized in accordance with a provider's requirements.

To customize a WEB portal, the Portal Constructor is available in SoftWLC. The Portal Constructor allows users to configure scenarios and appearance of portals used during Hotspot authorization. Users of the Portal Constructor can create and delete portals, select their background and content (text, images), set different modes and authorization scenarios for each portal. The Portal Constructor itself does not perform any actions in the service supply chain. This tool serves only for configuration.

The Portal Constructor GUI is available at the following URL: *http://<Portal Constructor IP address>:8080/epadmin*

Login and password for the portal configuration access are specified during running its installation package. User accounts and access rights management is performed via the "Wi-Fi B2B Admin Panel".

The Portal Constructor allows configuring portals to work both with Eltex access points and BRAS (ESR-1000) that is used to connect other vendors' access points to the Platform. If BRAS is used, it should be configured in the sections "BRAS access" and "PCRF access" of the Portal Constructor.

Use the package **eltex-portal-constructor** for installation.

Starting/stopping procedure

The interface works under tomcat (version 6 and higher), so no specific commands are needed.

Configuration

/etc/eltex-portal-constructor/application.conf

the main configuration file. Default configuration example:

```
auth-service {
    host = localhost
    port = 21812
    timeout = 10s
    retries = 3
    secret = eltex
    # pap, chap, mschapv2
    protocol = pap
}

login {
    # The number of attempts to log into Admin Panel before blocking
    maxAttemptsLogin = 3
    maxAttemptsIP = 5
    # Duration of the blocking period (in minutes) that starts after reaching the maximum number of attempts to
log into the Admin Panel
    blockTime = 5m
}

database {
    host = localhost
    port = 3306
    name = ELTEX_PORTAL
    user = javauser
    password = javapassword

    pool {
        # Time to wait for a connection
        connectionTimeout = 10s
        # Time to wait for connection validation
        validationTimeout = 3s

        min = 1
        max = 10
    }

    cache {
        # Limit of cached simple entries count (for each query type)
        maxEntries = 1000
        # Limit of total cached portal resources size
        maxResourceBytes = 32m
        # Maximum time to retain items in the cache
        expireTime = 30s
    }
}
```

Parameter	Description
auth-service — connection to the Auth service	
host	Authorization service address
port	a port to which requests will be sent
timeout	a server's response timeout
retries	the number of attempts
secret	a key word for message encryption
protocol	authorization protocol supported by a server
login — configuring password sniffing protection	
maxAttemptsLogin	the number of attempts to authorize under the same login on exceeding of which a Captcha will be enabled

maxAttemptsIP	the number of attempts to authorize using the same IP address on exceeding of which following attempts will be blocked
blockTime	IP address blocking time
database	
host	Database server address
port	The port of the database server for getting inbound connections
name	Database name
user	Database user's name
password	Database user's password
readOnly	Database connection status
pool	Database connections management **connectionTimeout** — timeout of the connection when idle **validationTimeout** — the interval between idle connections validation **min** — the minimum number of connections **max** — the maximum number of connections
cache	Caching settings **maxEntries** — the maximum number of items in the cache **maxResourceBytes** — cache size **expireTime** — cache data storage time

System settings in GUI

In this section, integration of the Eltex Portal and the Portal Constructor with platform, advertising and authorization services is configured.

Portal Constructor

Portal Constructor page setup
Parameters:

- Page title.
- Icon (favicon) — icon displayed in the title.
- Session timeout (min) — idle time on reaching of which a session will be terminated, and reauthorization will be required.
- Portal host — Eltex Portal address used for sending a command on data rereading (applying virtual portal changes without tomcat restarting). This parameter is requires if the Constructor and the Portal are installed on different servers.
- Portal port — a port listened by Eltex Portal service. If the Constructor and the Portal are installed on different servers, they should exchange packets via a specified port (when there is a firewall).

Alert settings

Notification of system administrators on portal operation errors. Notifications are sent by e-mail or SMS.
When a new recipient is added, a method of sending messages should be selected. Notifications can be sent via:

- **SNMP**
- **Email**
- **SMS**

Notification types

SNMP

Add recipient address ✕

Type	SNMP ▾
Host	127.0.0.1
Port	162
Community	public
Type	Trap ▾

[Save] [Cancel]

E-mail

Add recipient address ✕

Type	Email ▾
Email	example@email.com

[Save] [Cancel]

SMS

Add recipient address ✕

Type	SMS ▾
Phone number	79123456789

[Save] [Cancel]

The notification system is intended for notifying SoftWLC users on WEB portal problems. To add a new host, specify the following data:

- **Host** — an address of a server receiving traps;
- **Port** — a number of a port listened by a recipient. 162 port is usually used;
- **Community** — a character string containing a password in the clear;
- **Type (PDU type)** — Trap or Inform;
- **Response timeout (seconds)** — recipient response timeout (for Inform only);
- **Number of attempts** — the number of attempts to send messages of Inform type with an interval equal to the timeout.

NBI access

The interface to provide interaction between SoftWLC components
For the Portal to work correctly, configure its connection to the EMS server via Northbound interface. It allows the Portal Constructor to get all required data from EMS, for example a list of tariffs and their parameters.
Parameters:

- Protocol — a protocol used to transmit data to NBI (HTTP or HTTPS). A protocol is selected depending on the NBI configuration on the NBI server.
- Host — NBI server's address;
- Port — a port listened by NBI;
- WSDL path — an address on the server where the WDSL file is located. As a rule, it is "/axis2/services/RadiusNbiService?wsdl";
- Username — user login;
- Password — user password;

To access NBI, a service account **softwlc_service/service** should be used.

NGW access

an interface for working with SMS gateways.

Parameters for interaction between the Portal Constructor and the Notification Gateway service are configured in this section. It is necessary for the Constructor to be able to read information on support for different authorization types from NGW. As a result, if NGW is not configured for the call back authorization, the Portal Constructor will not offer this option to a user.

Parameters:

- Host — NGW server's address. If the Portal Constructor and NGW are installed on the same server, the field should be filled in with "localhost".
- Port — a port listened by NGW.

BRAS access

BRAS access settings.

When a checkbox "BRAS access enabled" is checked, BRAS support is activated on the Portal. After BRAS activation, PCRF tariffs will be available in portal settings.

Parameters:

- RADIUS secret KEY — a password used for exchange with RADIUS;
- BRAS secret KEY — a password used for CoA message exchange;
- CoA port — a port used for message exchange;
- Connection timeout (sec) — response timeout;
- Connection pool size — device number limit on BRAS.

Payments DB

access to the database containing information on tariff payment status.

When the checkbox "Use payment DB" is checked, the Portal initiates interaction with the database to store information on users' payments. If the checkbox is not checked, paid tariffs cannot be used.

Parameters:

- Host — the database server's address;
- Database name;
- Login — a login for the database access;
- Password — a password for the database access;
- Connection pool size — the maximum number of devices that can be connected to the database at the same time;
- Cleanup timeout — a timeout for irrelevant connections checking and deleting;
- Cleanup period — a timeout for deleting old entries from the database.

PCRF access

access to the session billing system for subscribers connected via BRAS.

Parameters:

- Host — PCRF server's address;
- Port — a port listened by PCRF.

Mercury access

access to the user account management service eltex-mercury

Parameters:

- Host — Mercury server's address;
- Port — a port listened by Mercury.

Wi-Fi Customer Cab (Admin Panel)

The link to Wi-Fi B2B Admin Panel. The link is displayed on the control panel of the Portal Constructor.
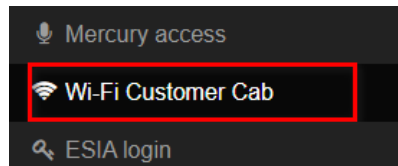
Parameters:

- Protocol — a protocol used for interaction with the Admin Panel (HTTP/HTTPS);
- Host — the Admin Panel server's address for users to be able to connect from an external network;
- Port — a port listened by the Admin Panel server.

ESIA login

ESIA integration configuration.

Parameters:

- ESIA environment type — Production or Test;
- System mnemonics — system identifier in ESIA;
- Access scope (scope) — operations that can be performed by a system (Eltex Portal in the present case) on behalf of a user;
- Key and certificate (PKCS#12 container) — system certificate registered in ESIA during application;
- PKCS#12 container password — a private key to a container with the certificate.

SATS integration

Configure SATS integration to perform MAC authorization using a common database of other providers.

Parameters:

Enable SATS integration — SATS integration opportunity for a portal; It is necessary to check an additional checkbox for each virtual portal;

Maximum number of connections — the maximum number of connections Eltex portal can hold to interact with SATS;

Timeout of connection, ms — the authorization service response timeout;

NAS ID — an individual identifier used in service authorization requests;

Secret NAS — a sequence used for sending requests to the authorization service.

Gallery

All images imported to the Portal Constructor and used for virtual portals' pages configuration are stored in the Gallery.

Search can be performed directly on the table columns: Name, Domain, Description.

Adding/updating images

Images can be added to the Gallery during virtual portals configuration (when images are selected) and directly in the Gallery. Process of adding an image to the Gallery:

1. Click "Upload".
2. Select a required image in the opened window.
3. Specify a Resource domain and add a Resource description. Resource domain is a domain of an image visibility for a Portal Constructor user. Portal Constructor users can see images with a domain that matches a user account domain or is a subdomain of it. Default images that are available in the Portal Constructor since the installation and do not have a domain, are visible for all Portal Constructor users.

After that, a new image will be added to the Gallery.

Parameters of an already added image can be changed. To do that, select an element and click "Change". If several elements are selected, the button "Change" will be unavailable.
When Name, Domain, Preview or Description of an element is changed, a link between the element and portals continues to exist. Thus, it is possible to add the same element to several different portals and then to make changes that will be applied to all cases.
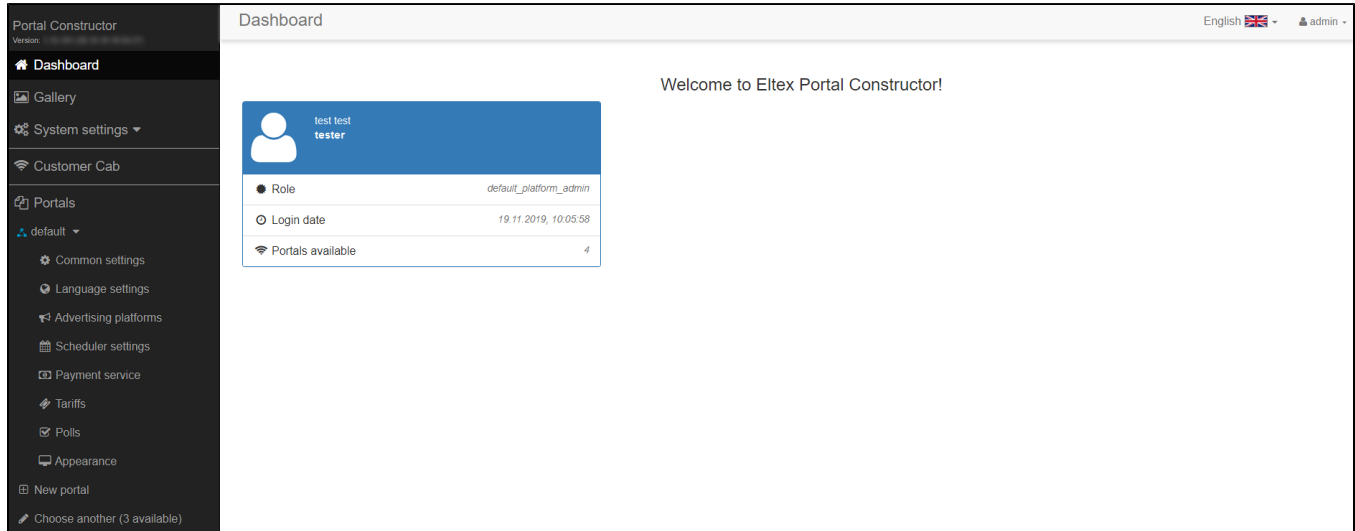
Deleting images

To delete images from the Gallery, select them and click "Remove".

When being deleted, an image is checked for being used anywhere else. If it is not, the system will display a message stating that the image has been deleted successfully.

If some of the images being deleted are used somewhere else, a list of corresponding virtual portals will be displayed.

Dashboard

Portal Constructor welcome page. The following parameters are displayed on the Dashboard:

- First name, Last name and Login of a user;
- User role (is not displayed for 'admin');
- Time of the last entry;
- The number of available portals (located in a user's domain);
- The number of portals without tariffs (user authorization is not available for these portals).

Customer Cab

The tab "Customer Cab" located on the side bar of the Portal Constructor is intended for fast and convenient switching between the Portal Constructor and the Admin Panel. As authorization in the Portal Constructor and the Admin Panel is performed via the same system: Auth Service, the Admin Panel is opened in a new browser tab after clicking the "Customer Cab". Authorization is not required as it is performed automatically.
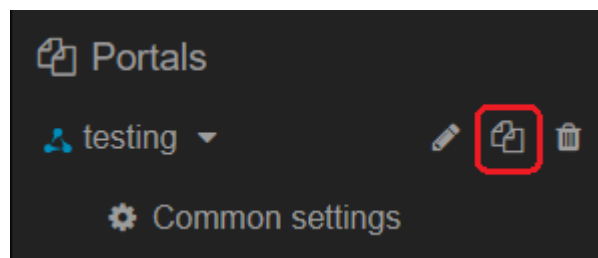
Portals
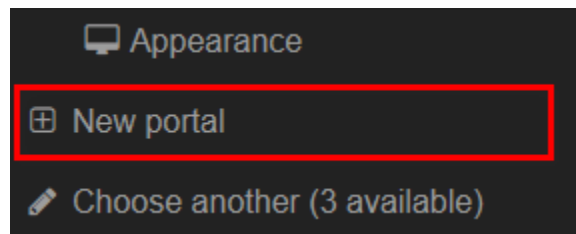
Creating a new portal

To create a new portal, click "**New portal**" on the side bar of the Portal Constructor. It is necessary to specify a Name and a Domain when creating a new portal. Portal Name will be required during an access point's Virtual Portal Name SSID configuration to link the SSID to a customized portal. Portal Domain will define Portal Constructor users for whom a portal will be visible (Portal domain should match a domain of a Portal Constructor user's account or be its subdomain). A WEB portal can contain an unlimited number of pages (portals) with unique customization.

The Portal Constructor has the "Default" portal after installation. This portal is available only for the Portal Constructor Administrator. When a new portal is created in the Portal Constructor, it has the same configuration as the "Default" portal has. Therefore, the Administrator can configure the "Default" portal for other portals to be initially pre-configured and to require the minimum efforts for their customization.

Copying a portal

To copy a portal, click . The following data will be copied:

- Portal settings
- Portal appearance
- Portal domain

Common settings

Work schedule	Default ▾
Default language	Russian ▾
Generated password length *	4
Free re-entry time	0 days 1 hours 0 minutes
Time the MAC address will be stored	30 days 0 hours 0 minutes
Add session ID to redirection URL	☐
SATS MAC authentication	☐ ⚠
Mode	○ Registration only
	Only allow registration with mobile number confirmation ("I don't have a password" button)
	○ Authorization only
	Allow only registered users to sign in ("I have password" button)
	◉ Registration and authorization
	Enable registration and login with the existing account data
Ask users whether they agree to receive promotions	☑
Mandatory field	*Do not provide service on denial*
	☐
Additional fields	☐
Display user agreement	Under the buttons ▾

Confirmation methods

Demo mode	☑
SMS to user	☑
SMS from user	☐ ⚠
Call to user	☐ ⚠
Call from user	☐ ⚠
Enable ESIA Login (Government Services)	☐ ⚠
Fan ID Auth	☐ ⚠

SMS settings

Default country code	Russia (+7) ▾
Allow users to choose country code	☐
Cut SSID name in SMS	☐
Seconds between attempts to get SMS	

Security settings

Enable CAPTCHA	☐
Enable sms antispam	☐
Access list by MAC	not set ✎
Access list by phone number	not set ✎

Additional pages

Instructions	☐
Success	☐
Welcome	☐
Cookie disabled	☐
Page 1	☐
Page 2	☐
Page 3	☐
Page 4	☐
Page 5	☐

Save

In the section "Common settings" main parameters of a portal are configured.

Language settings — a language used by default when a portal is opened on a client's device, if a language used on it is not supported by a portal. Language can be defined by headers transmitted by a user's device (the field Accept-Language). Many devices transmit several languages in this field. If one of transmitted languages is supported by a portal, it will be used instead of the main language.

Generated password length — a number of symbols in a password generated automatically during user registration.

Free re-entry time — sets time during which a user will not return to a portal (the Welcome page) when reconnected (relevant for the scheme of connection via BRAS).

Add session ID to redirection URL — adds a unique user session identifier to a URL when redirection from a portal is performed. Session ID substitution is put to URL in the following cases: Redirection from the final page and click on a banner on the "Sussess" page.

Time the MAC address will be stored — defines a user's MAC address storage period. When a user is reconnected, the system identifies a user automatically, without re-registration on the portal.

Enable ESIA Login (Government Services) — enables a form for user authorization via ESIA. The option is available only if integration between Notification GW and ESIA is implemented.

SATS MAC authentication — enables checking SATS for a user's MAC address. The checkbox is available only if integration with SATS is enabled on a global level.

Mode — selecting a user authorization mode. Available modes:

Registration only — if this mode is selected, a Wi-Fi user will be able to authorize in the system only after phone number confirmation (for example, by specifying it on a portal and receiving an SMS with a password). A user will not be able to specify credentials obtained in advance. The mode is typical for classic hotspots with call back or SMS authorization.

Authorization only — a Wi-Fi user will be able to authorize on a portal only if he enters a login and a password issued in advance into a special form. It will be impossible to perform authorization by confirming a phone number via a call or an SMS. Logins and passwords are usually generated by an organization Administrator.

Registration and authorization — the composition of the modes described above. A user can: enter credentials received in advance or register a phone number via an SMS or a call (see below for details).

Ask users whether they agree to receive promotions — display a checkbox to define if users agree to receive promotions.

Mandatory field — allows to make an agreement to receive promotions obligatory. If a checkbox is checked, a user should agree to receive promotions to authorize on a portal (otherwise the services will not be provided).

Additional fields — the option allows getting additional information on users: first name, last name, e-mail address. If the checkbox "Mandatory field" is checked, the fields are obligatory to be filled in (the option is not supported if the payment service is enabled).

Confirmation methods — select a way for a user to confirm his phone number. Several methods can be enabled. Then a user will be able to choose the most appropriate method.

Demo mode — the mode that does nor require integration between Notification GW and other systems. The mode allows learning about a portal operation on initial steps of the system installation. When a user selects this mode and enters his phone number, a portal page is opened with the field "Login" filled in with the phone number, and the field "Password" filled in with an automatically generated password. A user should click the button "Log in" to perform authorization. No SMS are needed. *However, this mode does not provide subscriber identification, as a subscriber may enter a phone number that does not belong to him and stay anonymous. It is recommended to use this mode for demonstration purposes, not for real operation, as it may contradict the laws of a country in which the service is provided.*

SMS to user — confirm a phone number by sending an SMS with a password to a user. A user should enter his phone number on a portal for the system to generate a password and send it via SMS. A user enters this password on a portal's page (with the field "Login" filled in with his phone number) and thereby performs authorization and confirms the phone number. The mode requires integration between Notification GW and an SMS gateway of a provider used for SMS sending.

Call to user — confirm (register) a user account via a call back.

- Response timeout (s) — SMG gateway response timeout. Can be from 10 to 600 seconds.

SMS from user
Call from user — confirm (register) a user account via an outgoing call.

Additional pages — additional pages of a virtual portal used to organise switching between complex scenarios and user notifications.
  Instructions — enable instructions on portal pages.
  Success — enable a success page seen when the Internet connection works.
  Page 1-5 — enable additional pages of a virtual portal.

SMS settings

Default country code — phone numbers of foreign users have prefixes different than "+7". A user have an opportunity to select a prefix of his country on a portal. The option is used to select a prefix displayed by default after a portal launch.

Allow users to choose country code — enables/disables country code selection on a portal. If the option is disabled, a user will be able to specify a phone number only with the default prefix. The option is usually enabled when people from other countries are expected to authorize on a portal.

Countries for the top of the list — creation of a list with phone codes of countries that will be displayed in the top of the list containing all country codes. The option is available in Common settings only if the option "Allow users to choose country code" is enabled. The option is commonly used to put phone codes of countries frequently selected during portal authorization in the top of the list. As a result, most users do not have to scroll the list to the end — required prefixes can be found at the top.

Cut SSID name in SMS — the option allows reducing the length of SMS sent to a user by SSID name shortening (if it is too long) in order to fit information into one message. That helps to save on SMS sending.

Security settings

Enable CAPTCHA — enable captcha on a portal to provide bot protection.

Captcha length — the number of symbols in a captcha image. The higher is a number of symbols, the higher protection from bots, and the more complicated a procedure of captcha entering is for a user. The option is displayed in the settings only if the option "Enable CAPTCHA" is activated.

Enable sms antispam — the option limiting a frequency of sending SMS to a user. If the limit is exceeded, a user will be banned (by MAC address) and will not be able to authorize. If authorization is successful, the counter is reset. After enabling the option, there will be an opportunity to set a number of attempts to receive an SMS message on exceeding of which a user is banned, time between attempts (in seconds) and a period during which a user is banned.

Access list by MAC — list of MAC addresses that allows limiting access to a portal by a client's MAC address. There are two types of lists:

- White lists — all addresses contained in the list, have access to a portal while others do not. If a client's MAC address is not contained in a white list, he will get a page of the portal explaining that there is no such MAC address in the list.
- Black lists — all addresses have access to the portal while addresses included into a list do not. If a client's MAC address is contained in a black list, he will get a page of the portal explaining that the MAC address is contained in the list.

Access list by phone number — the list containing phone numbers and used to limit access to a portal by a client's number.

Language settings

The portal can simultaneously support several languages: Russian, English, Kazakh, Chinese, German, Italian, Farsi, French and Spanish.

A user can select languages in the left side panel by checking corresponding checkboxes. The two languages are available by default. English and Russian. Other languages are initially disabled. If there was an upgrade from previous SoftWLC versions, language settings of portals created before remain the same.

The following settings are available for each language:

Redirection URL — URL of a page to which a user will be redirected after portal authorization (for example, when he has entered a phone number, received an SMS and specified a password on the portal, he will be automatically redirected to this URL). It is usually a client's (or a provider's) website or an advertising page.

> ⚠ Cyrillic domains should be previously converted, for example, using https://2ip.ru/punycode/. Paste a new link to the **Redirection URL**.

Page title — is formed by a portal administrator individually (an optional parameter).

Signature — is formed by a portal administrator individually (an optional parameter).

Message on successful connection — text of a message.

SMS template — a template for a message in which a password will be sent to a user.

Scheduler settings

Expanded schedule

The section allows creating schedules. They are used for configuring banner displaying and URLs to which users are redirected after portal authorization.

⚠️ To create and edit schedules, a Portal Constructor user should have rights to edit system settings. Created schedules are available for all users.

To view and edit a schedule, click the icon ✏️ on the right from a schedule's name. After that, it will be possible to select working hours for this schedule. Working hours are displayed as coloured cells, off hours — as light grey cells.

To save changes, click the icon 💾. To cancel changes, click ✖️.

To delete changes, click 🗑️. When a schedule is deleted, all resource (banners and redirect URLs) links to this schedule are deleted on all portals where it is used.

To add a new schedule, click the link "here".

⚠️ The buttons for saving changes and deleting schedules will not be displayed for users without editing rights.

Payment service

A user can be authorized on a portal only after making a payment via the service Yandex.Checkout.

To enable payment services, check the checkbox "Configure payment service".

Demo payment mode — enable/disable demo mode for Yandex.Checkout;

ShopId — a unique portal identifier in the payment service system. ShopID can be obtained after Yandex.Checkout registration**(obligatory field)**;

ShopPassword — portal password in the payment service system. ShopPassword is specified independently in a Yandex.Checkout account **(obligatory field)**;

Showcase number (Scid) — a showcase number in the payment service system. Scid can be obtained after Yandex.Checkout registration **(obligatory field)**;

Support phone numbers for payment failure cases — a number of technical support will be displayed if the field is filled in, but a payment has been declined for some reasons, and a user has been redirected to the portal from a payment website;

Activate payment modes — enable/disable payment methods. Available payment methods are listed in the section "Payments" on checkout.yandex.com. The following payment methods can be enabled:

- Yandex.Wallet (available in the demo mode);
- Bank cards (available in the demo mode);
- Alfa-Click;
- Sberbank Online or Sberbank SMS;
- Payment terminals;
- WebMoney;
- Qiwi wallet;
- Direct carrier billing.

> ⚠ If no paid tariffs are configured on a portal, the following message will be displayed on the page "Payment service":
> 'You need to enable a paid tariff on the "Tariffs" page in order for the service to work'

Tariffs

Tariffs				English 🇬🇧 ▾	👤 ▾

Tariffs	Tariffs for BRAS (advertising, polls)			
Tariff	**Code**	**Domain**	**Portal tariff name**	
▾ Work with AP				
Hotspot Default	default	ap.hotspot.service.root	default	**Delete**

	Tariff	Code	Domain
☐	**Tariff**	**Code**	**Domain**
▾	**Work with AP**		
☐			root
☐			root
☐			test.service.root
☐			build2.root
▾	**Work with BRAS**		
☐			bras.hotspot.service.root
☐			bras.hotspot.service.root

🔍 Search...

Add   Cancel

Tariffs that contain access limits and are offered to users on connection to a SSID in Hotspot mode which a considered WEB portal relates are selected on this tab.

In the field *"Portal tariff name"*, a tariff name seen by a user during portal registration can be specified. Tariffs for "Access points" are configured via the Admin Panel or via the system Eltex.EMS. PCRF tariffs can be configured only via the Admin Panel. Several tariffs can be configured within one portal.

> ⓘ A portal should have at least one tariff. Otherwise, a portal will now be able to operate, and an error will be displayed on users' devices.
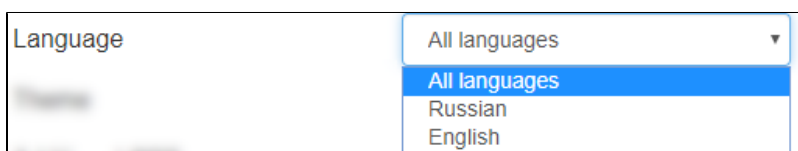
To add a new tariff, click the button "Add". Select tariffs by checking corresponding checkboxes. Click the button "Add" in the current window to confirm the choice.

Appearance
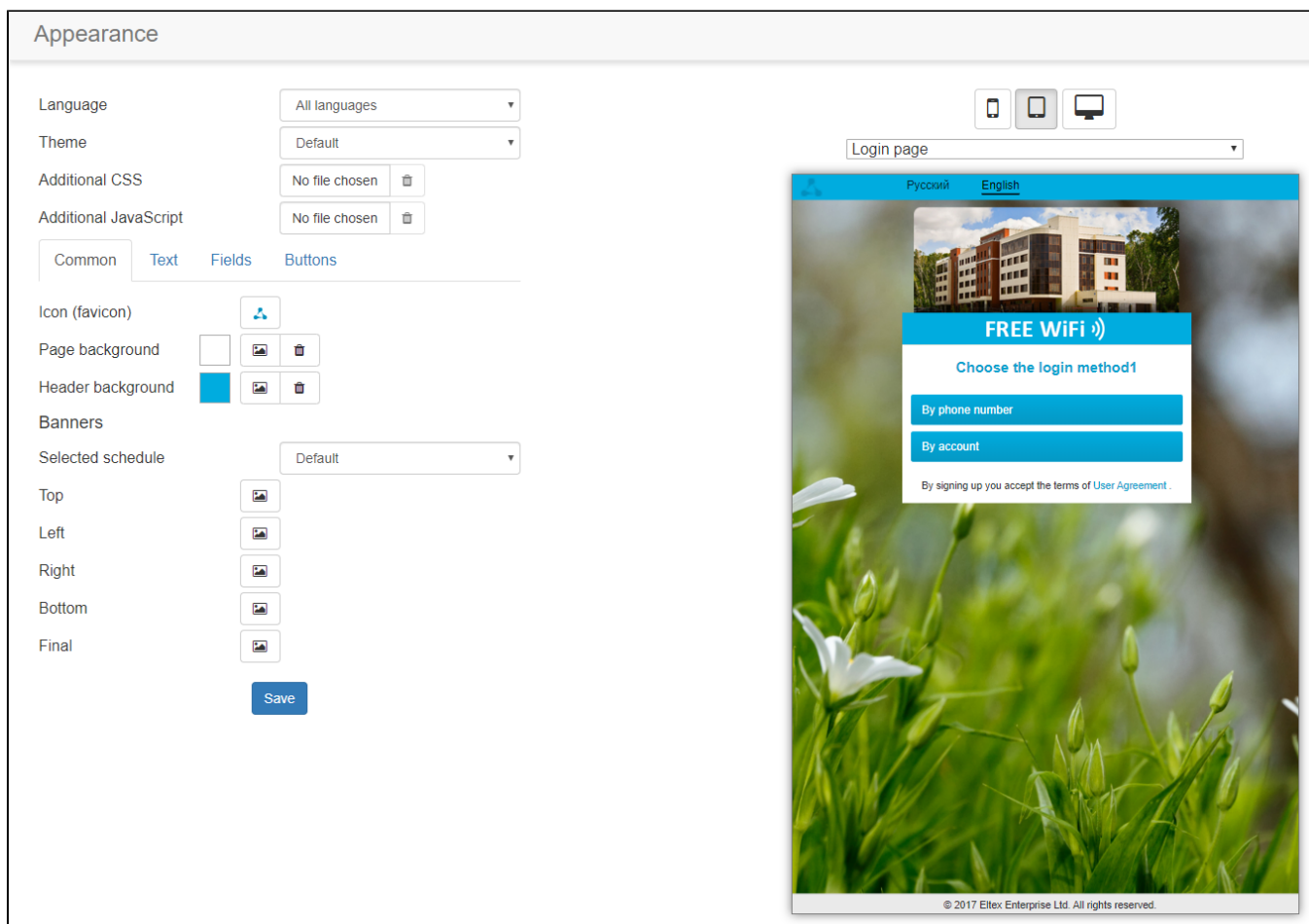
A toolkit for changing appearance and content of portal pages.

Language

The virtual portal has a multi-language interface. A Wi-Fi user can select any language from the offered ones. In order to configure portal pages' appearance separately for each language, the language selection menu is used. When a certain language is selected, all changes will be applied only to this language. Thus, when a content of text fields is edited, changes will be saved only for the language which is selected. When the mode "All languages" is selected, changes will be applied to all available languages.

Preview
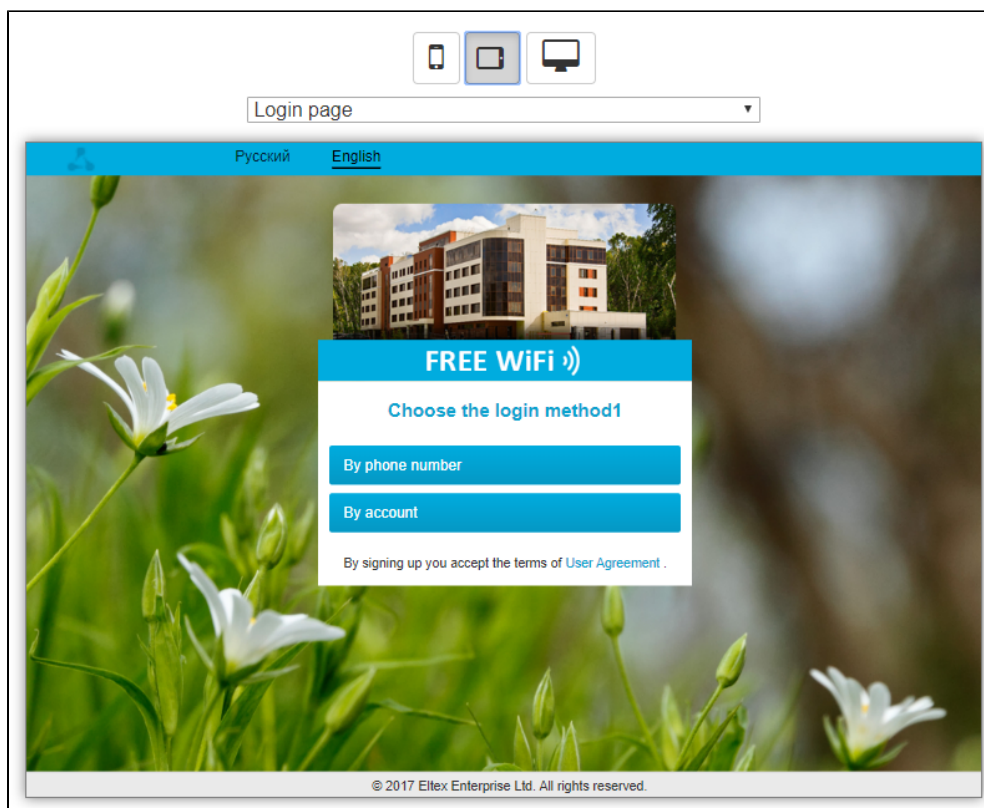
The preview is used to configure a portal and to see how a virtual portal is displayed on users' devices.

The preview is located in the right part of the configuration window. Above the preview, the following icons are displayed: . They are used to switch a client device type and to show how a portal will look on a smartphone, tablet or laptop screen. To see how a portal will be displayed for screen landscape orientation, left-click the icon twice: .

Below the icons, the menu for portal page selection is located . During portal authorization, different pages of a portal responsible for a certain authorization step are displayed on a subscriber's device (Login page, Enter SMS code, Session end, Non-working time on schedule, User agreement, Access limited, Access denied, Session expired):
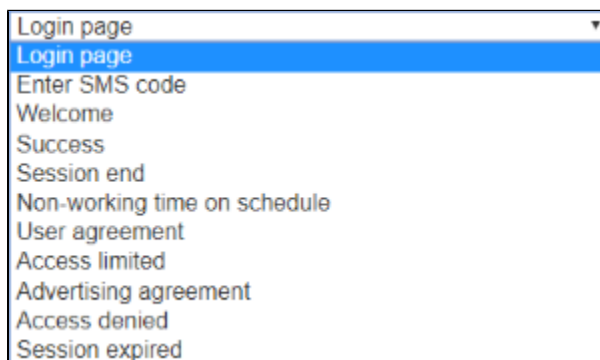
Configuring elements
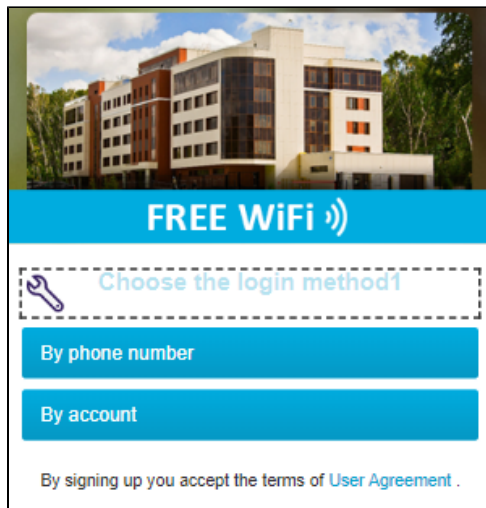
Example of editing a message on a welcome page

Click the image of a wrench to edit a welcome text:

Edit page Login page

Choose the login method!

div h2

Cancel   Save
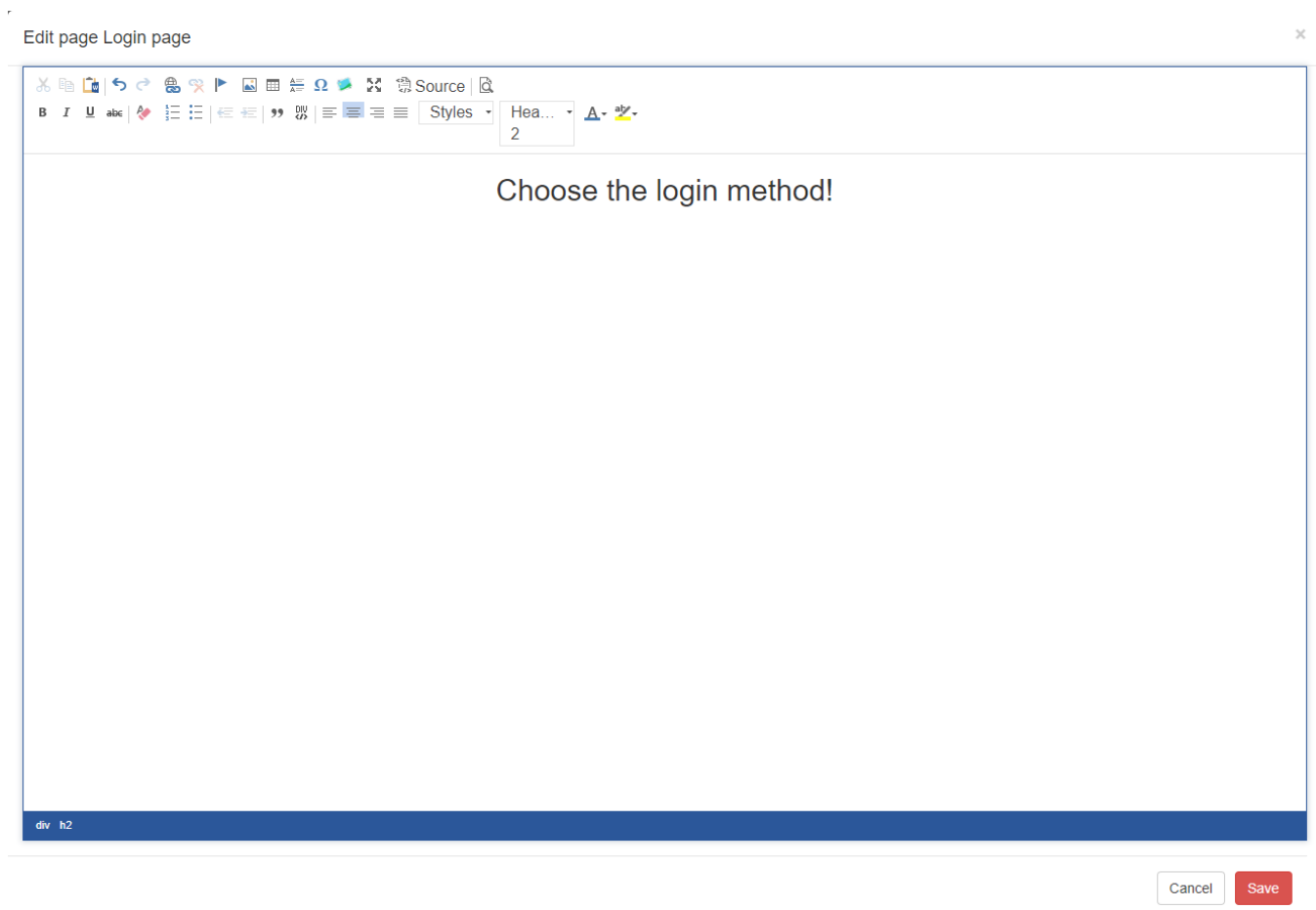
As a result, a portal will look like this:
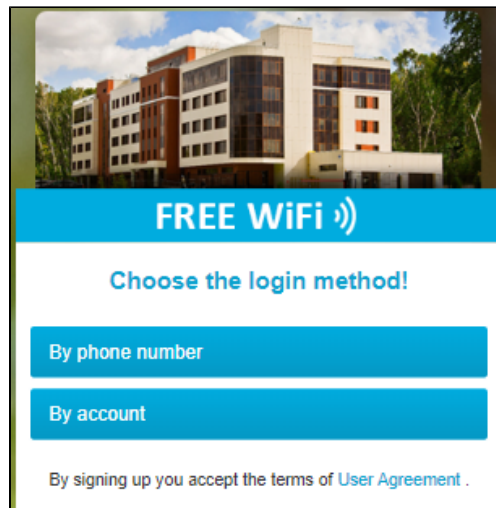
When placing a mouse over portal elements in the preview, a special icon can be noticed. That means the element can be changed by a user. This option is available for portal text fields and images used for banners. Note that content of some text fields is standard for all portals, for example, explanatory texts displayed during registration/authorization. Such texts are non-editable. Moreover, the text of the "User agreement" should be changed centrally for the whole system, so it can be edited only by a superuser and only in the portal "default" from which other portals will obtain it.

Configuration tools

Colour settings
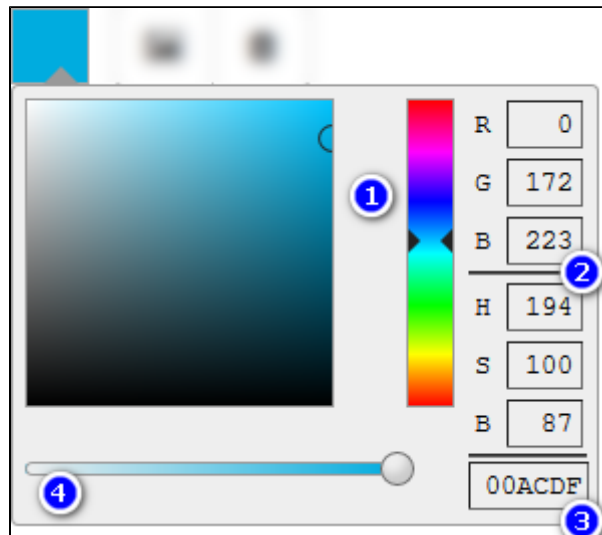
To change a colour of elements, click the icon looking like a filled square (shows the current colour): . The window for colour selecting will be opened. The elements of the window:

1. Palette — shows a selected colour and gives an opportunity to select a colour by clicking on a required point of the palette square.
2. Colour RGB/HSB code — combination of integer values.
3. Index — colour representation in a form of an index. A colour index can be specified manually.
4. Saturation — move the slider to change colour transparency from 0% (transparent) to 100% (opaque).

Selecting an image
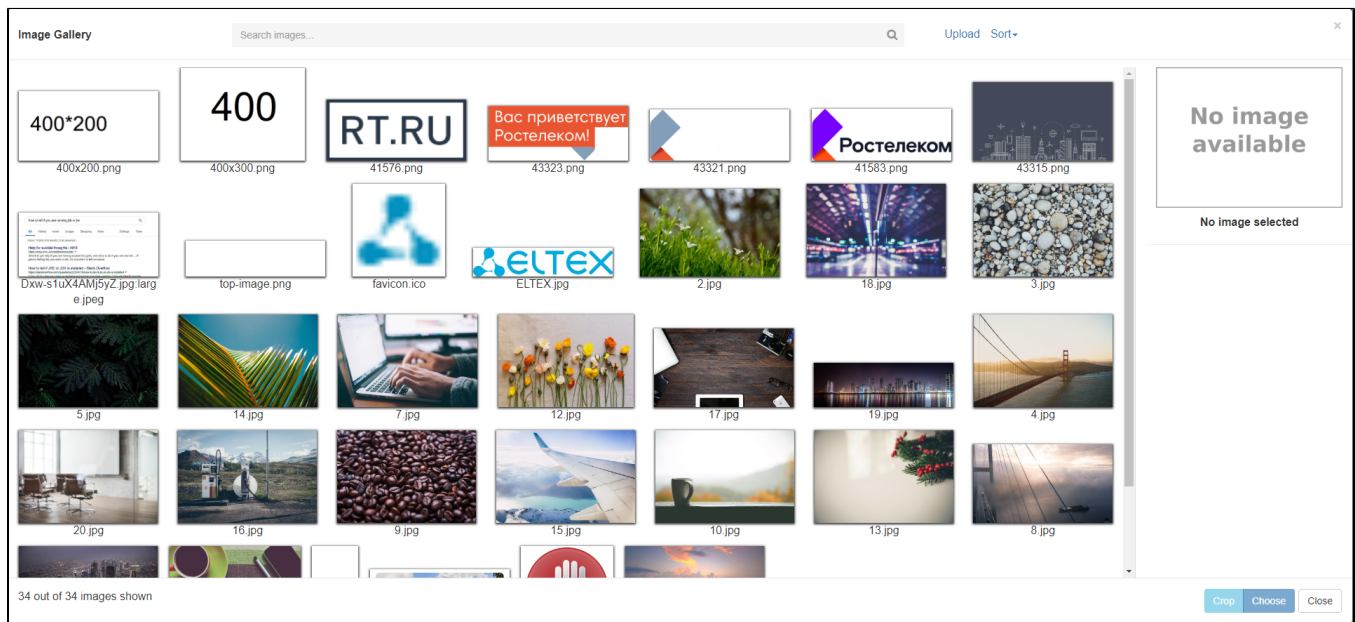
To select a new image or edit an existing one, the icon ![icon] is used. When it is clicked, a window for selecting an image from a gallery will be opened.

Sections

Common

In this section the following parameters are configured:

- Icon (favicon) — an icon displayed in a page header in a user's browser. This icon will also be used when a portal will be displayed in the Portal Constructor. To change an icon, click its preview. A gallery will be opened to select another image.
- Page background — a background image of a portal page.
- Header background — a top panel with a logo and language selection.
- Top banner — is located above the user menu (2).
- Left banner — is located on the left from the user menu (1). Not displayed in the mobile version. Displayed in the tablet version only if the right banner is disabled.
- Right banner — is located on the right from the user menu (3). Not displayed in the mobile version. Displayed in the tablet version only if the right banner is disabled.
- Bottom banner — is located under the user menu (4).

> ✓ It is recommended to use images with transparent background as they will blend in a portal's design.

✓ GIF images displaying animation can be used as banner or background images, for example:

Configuring banners

bottom-image banner configuration ✕

If you select more than one image, it will be formatted using the smallest image.

Save   Cancel

logo banner configuration ✕

If you select more than one image, it will be formatted using the smallest image.

FREE WiFi ⊙)

Save   Cancel

To add a new banner or to edit an existing one, click the icon near a banner's name (top, left, right, bottom, final). Added banners are displayed on a preview. To edit them, move the mouse pointer over a banner and click the icon .

When a new banner is added, the button is used to open a gallery for image selection. A banner may contain several images. In such configuration, they will replace each other. Change of images on all portal banners will be synchronized. Images displayed in one banner should have the same width and height (in pixels).

To change a selected image, click the icon . To delete it, click .

The system offers to configure banners for the shedule "Default". Another schedule created in the schedule configuration section can be selected before banner editing. When such a schedule is selected, it will be linked to a portal. Only banners configured for it will be displayed during working hours.

⚠ Thus, if a schedule is selected only for one banner, other banners will not be displayed according to this schedule.

When required images are selected, click "Save".

✓ Remember that images should be the same size. For example, if the size of the first image in "Logo banner configuration" is 400px * 200px, the second and subsequent ones should have the same size (400px * 200px).

Text

- **Content** — a text displayed on a user registration page. Specified via a standard text editing form.
- **Registration form title** — a registration page title that will be displayed in a browser.
- **Sign in form title** — a sign in page title that will be displayed in a browser.
- **Background** — a background colour for the area containing text and control elements.
- **Normal** — a colour and a font used to display the main text on a portal.
- **Titles** — a colour and a font used to display page titles.
- **Links** — a colour of links (the font of the main text is used).
- **Header** — a colour used to display available languages in a header.

Fields

- **Text** — a colour and a font of text fields.
- **Background** — a background colour of text fields.
- **Border** — a colour and a width of a border.
- **Rounding** — a corner rounding radius of text fields.
- **Username field label** — a label displayed near a field with a username. The parameter can be changed only if a language for editing is selected.
- **Password field label** — a label displayed near a field with a password. The parameter can be changed only if a language for editing is selected.

Buttons

- **Border** — a colour and a width of a button border.
- **Rounding** — a corner rounding radius of buttons.
- **Sign in button title** — a text displayed on a button for signing in with an existing user account.
- **Sign up button title** — a text displayed on a button for signing up with a new user account.
- **Text** — a button text colour.
- **Background** — a button colour.
- **Gradient** — creates a gradient fill on a button (if enabled).
- **Preset** — select pre-configured colour adjustments for buttons.

Additional CSS

Language	All languages ▼
Theme	Minimalism (white) ▼
Additional CSS	No file chosen 🗑
Additional JavaScript	No file chosen 🗑

An option for uploadingfiles to a virtual portal for changing display settings of virtual portal elements. The option allows configuring portal elements for which GUI configuration cannot be implemented.

To cancel changes made after applying a css file, upload an empty one.