

# Telco 2.1 Plugin for Integration of Blog Software with Mobile Communication Network

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# Introduction

## What is it?

Plugin which implements access to telco functionalities of Orange Polska mobile network. Its key job is to enrich Web pages with rich communication (SMS, MMS, location) capabilities. This is done by just inserting simple shortcodes in a post body without necessity of any Web-programming efforts from blog owner.

Business-wise, it not only enables Web page with more interactivity and thus it gets more traffic but also opens **new revenue opportunities** for blog owners (Premium Rate content) and mobile network operators (revenue share, higher ARPU).

## Highlights

- Instant access to telco functionalities from a Web page
- Non-trivial functionality – much more than just send SMS or locate subscriber
- Provides useful communication and business components (e.g. auction, voting, access codes)
- Modular architecture – easy to maintain and develop
- Fully integrated with WordPress:
  - can be downloaded from repository of plugins
  - configuration through consistent User Interface
  - uses and implements new hooks, actions, and filters
  - automatic new version notification
  - one-click update

# Added Value for . . .

## . . . Mobile Network Operators

- new channel for selling old services
- ARPU increase
- new revenues from targeted advertisement insertion

## . . . blog owners

- more interactivity = more traffic
- possibility to sell Premium Rate content
- increased blog security

## . . . Web/mobile developers

- simple secure tool to integrate Web with telco network
- ready to use business components

# Demo

## Working prototype

Working prototype demonstrating key features of the is available **here**.

## Demos

- 1 Location on map
- 2 Premium Rate content
- 3 SMS auction
- 4 SMS poll/voting
- 5 Configuration screenshots

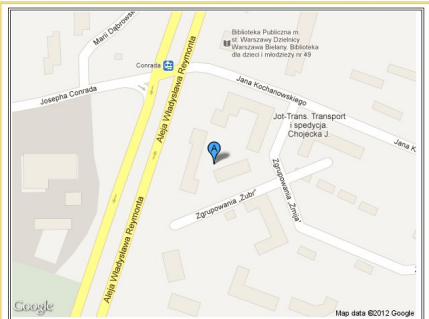
▸ Skip demo slides

## [DEMO1]: Location on map

Shows terminal location on Google map. Subscribers' nicknames can be used instead of MSISDNs. Registered users can set required minimum delay between localization of their terminals.


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Shows terminal location on Google map. Subscribers' nicknames can be used instead of MSISDNs. Registered users can set required minimum delay between localization of their terminals.



Done.

Who?	Where?	When?
501***090	?	forbidden
scoutB	A	2012/08/29 17:21:20

Powered by 

## shortcode

```
[lemon-locate nicks="501(...)090 scoutB"]
```

## [DEMO2]: Premium Rate content

Hidden content is shown only after access code is provided and only for designed period of time. Viewers request access code via SMS.


**[DEMO2] Premium Rate content**

Hidden content is shown only after access code is provided and only for designed period of time.  
Viewers request access code via SMS.

To access this content you have to send sms 'lemon pr Lotto' to **551 (519400041)** for pre-paid and non-Orange customers). After receiving the code insert your mobil number and the code below.

MSISDN:  Code:

Access code required.

Powered by 

## shortcode

```
[lemon-premium id=lotto period=10]Next lotto: 45(...),98[/lemon-premium]
```

## [DEMO3]: SMS Auction

Users can submit their purchase offers via SMS. When new highest offer is submitted all other bidders are notified.


Users can submit their purchase offers via SMS. When new highest offer is submitted all other bidders are notified.

I would like to sell one of my old bikes:



To bid send an SMS 'lemon bid bike *\_price\_* to 551 (519400041 for pre-paid and non-Orange customers). Replace *\_price\_* with your offer.

Offer	Who?	When?
1000	504***845	2012-08-08 10:57:19
14	501***090	2012-08-08 09:11:41

Powered by 

### shortcode

```
[lemon-auction id=bike]I would like (...) [/lemon-auction]
```

## [DEMO4]: SMS poll/voting

Simple way to set up an SMS poll on any subject.

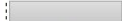
### [DEMO4] SMS poll/voting

Simple way to set up an SMS poll on any subject.

:Pick your favorite day of a week.

:Submit your vote by sending an SMS 'lemon poll week \_opt\_' to 551 (519400041 for pre-paid and non-Orange customers). Replace \_opt\_ (case sensitive!) with one of the following:

:Tue : 16.67%



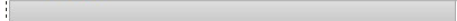
:Wed : 0%



:Thu : 0%



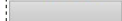
:Fri : 66.67%



:Sat : 0%



:Sun : 16.67%



:Total votes: 6

Powered by



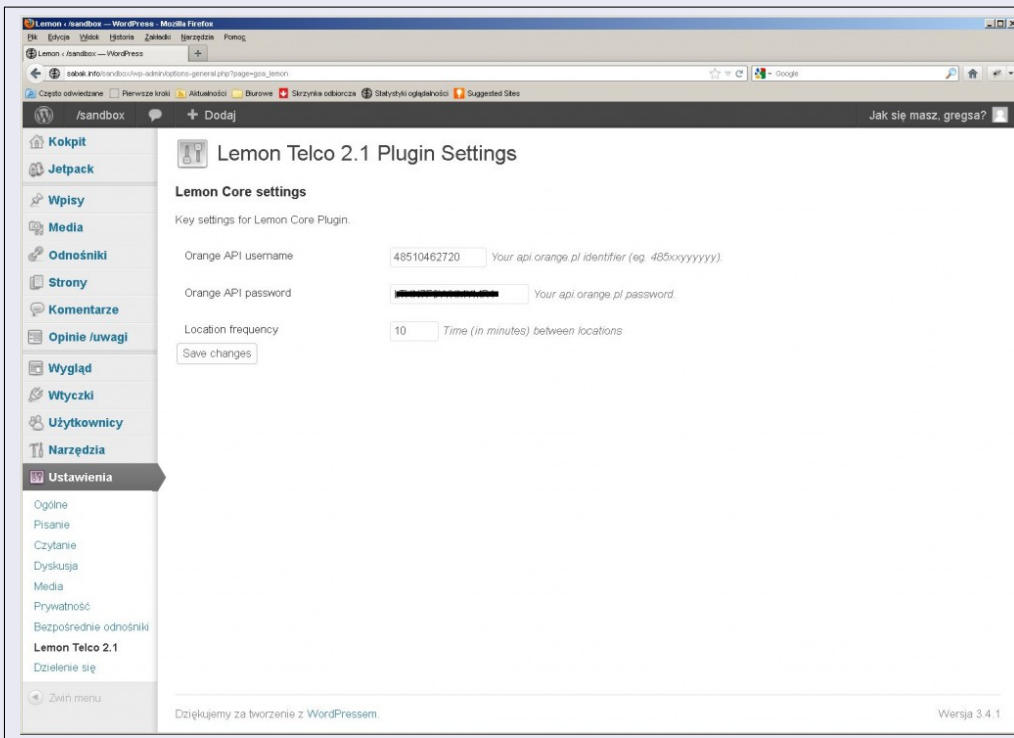
## shortcode

```
[lemon-poll id=week options= Tue, Wed, Thu, Fri, Sat, Sun] Pick (...) week.
[/lemon-poll]
```



## [DEMO5]: Config screenshots

Lemon Telco 2.1 plugin is tightly integrated with WordPress engine. Its configuration can be done through simple, intuitive, and well known user interface.

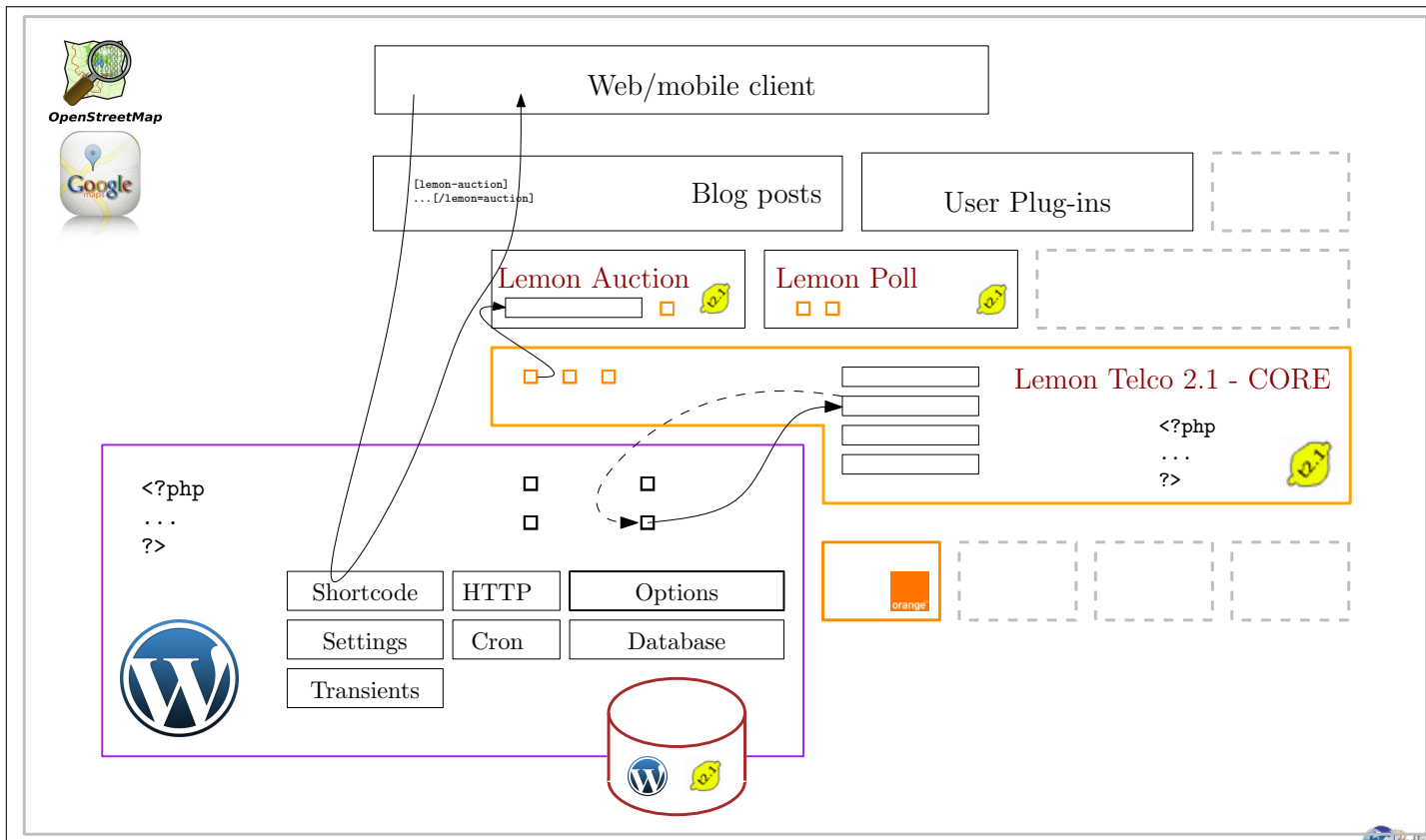


The screenshot shows the WordPress admin interface for the Lemon Telco 2.1 plugin. The browser window title is "Lemon Telco 2.1 Plugin Settings". The page is titled "Lemon Telco 2.1 Plugin Settings" and displays the "Lemon Core settings" section. The settings are as follows:

- Orange API username: 48510462720 (Your api orange.pl identifier (eg. 485xxxxxxx))
- Orange API password: [REDACTED] (Your api orange.pl password)
- Location frequency: 10 (Time (in minutes) between locations)

There is a "Save changes" button below the settings. The left sidebar shows the WordPress admin menu with "Ustawienia" (Settings) selected. The footer of the page includes the text "Dziękujemy za tworzenie z WordPressem." and "Wersja 3.4.1".

# Architecture and Mechanics



## WordPress APIs used

### ■ Shortcode

Executes a procedure processing post body after a shortcode is found. Typically used to insert *special* content.

### ■ Database

Provides secure access to WP DB. Allows to create and access user owned tables.

### ■ Options

Easy and secure way to store data in a database.

### ■ Transients

Allows to cache data which is meant to be valid until some point in time.

### ■ Cron

Users can schedule execution of a procedure in future or made it repeatable with chosen frequency.

### ■ Settings

Gives access to settings and allows to manipulate them through consistent UI.

## Other APIs

### ■ [api.orange.pl](http://api.orange.pl)

Provides access to Orange Polska mobile communication network.

### ■ Google Maps

Interactive maps in Web browsers.

### ■ OpenStreetMap

Interactive maps in Web browsers.

## Instead of the summary: Lemon Telco 2.1 Ecosystem

### Environment for Web/mobile business development which ...

- ... enables private and company Web pages with rich communication
- ... supports SME's business processes with mobile telco functions
- ... gives ready-to-use business components (e.g. SMS auctions, voting, Premium Rate access codes, etc.)

### Lemon Telco 2.1 Ecosystem

- Telco 2.0 API (service platform + commercial offer)  
[technical platforms almost ready: MMSE, api.orange.pl]
- Lemon Telco 2.1 WordPress plugin  
[working prototype ready: link]
- Premium Rate revenue sharing processes  
[new business processes to share revenue with individual customers]
- Business Development sandbox  
[user friendly service creation environment based on PoweredByOrange plugin]

## Why WordPress?

- It is one of the most popular blog engines in the world.
- It evolved from one-person blog to almost fully-fledged e-commerce engine.
- Its internal architecture supports extensions and building of plugins.

## Author's contact details

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