Installing and setting CoGIS

Manual on installing and setting CoGIS Designer and CoGIS SOE, geoportal CoGIS Portal and service for work of mobile applications CoGIS Mobile

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1. Preamble

1.1.Platform components

CoGIS platform consists of the following software components:

- **CoGIS Designer** a constructor for creation of interactive maps and fully functional web map applications based on map services, geoprocessing and analyses tools;
- **CoGIS SOE** (SOE, an abbreviation for Server Object Extension) a module providing support for advanced methods to work with the map services layers and objects;
- **CoGIS Portal** a geoportal consisting of catalog of published interactive maps and map apps, tools for searching and navigation, and web pages with reference information which structure and content are set in accordance with the users' needs;
- **CoGIS Mobile** mobile applications for work with interactive maps and map apps on iOS and Android devices and mobile service for operation of these applications;
- **eLiteGIS** a GIS server for publishing data and tools as web services.

This manual contains instructions on installing and primary setting of CoGIS Designer, CoGIS Portal, CoGIS SOE and mobile service for work of CoGIS Mobile¹ applications.

Instructions on installing and primary setting of GIS server eLiteGIS, a part of CoGIS platform, are provided in the Installing and setting eLiteGIS manual.

Complete list of instructions on work with platform components is provided in section 1.3 below.

1.2.System requirements

For proper work of CoGIS components on Windows OS, the following needs to be installed:

- Internet Information Services and/or Internet Information Services Hostable Web Core;
- .Net Core 2.2 (ASP.NET Core/.NET Core: Runtime & Hosting Bundle).

For proper work of CoGIS on Linux OS, the web server (NGINX, for example) needs to be installed.

More details about preparing system for CoGIS installation see in sections below.

1.3.Additional information

Additional information about CoGIS platform can be viewed in the following documents and manuals:

- General description of CoGIS platform, including description of GIS server eLiteGIS;
- Manual on publishing GIS services in eLiteGIS;
- Manual on installing and setting eLiteGIS;
- Manual on creating map projects in QGIS;
- Manual on creating map applications in CoGIS;

¹ Since installation of CoGIS Designer, CoGIS Portal, CoGIS SOE and service for work of mobile applications CoGIS Mobile is done based on a single installation package, in this document the generalized term CoGIS will be used for all these components.

• Manual on working in mobile applications CoGIS Mobile.

2. Installing CoGIS

2.1.Installing on Windows OS

2.1.1. Preliminary system setup

2.1.1.1. Internet Information Services (IIS)

For work of CoGIS make sure that the IIS program components are installed in the system.

To do so, go to Windows Features (Windows components) of control panel:

Control Panel -> Programs and Features -> Turn Windows features on or off



Programs and Features Uninstall a program | 🔞 Turn Windows features on or off | View installed updates | Run programs made for previous versions of Windows | How to install a program

If Internet Information Services and/or Internet Information Services Hostable Web Core components are turned off, turn them on as shown on Figure 1.

🖾 Windows Features -	×				
Turn Windows features on or off					
To turn a feature on, select its check box. To turn a feature off, clear check box. A filled box means that only part of the feature is turned					
🕀 🛄 Hyper-V					
☑ Internet Explorer 11					
🗄 🗹 📔 Internet Information Services					
Internet Information Services Hostable Web Core					
🗄 🔲 Legacy Components					
ОК	Cancel				

Figure 1 – Turning on IIS program components

Then press OK. The program components will be installed.

2.1.1.2. .NET Core 3.1

For work of CoGIS you also need to install .Net Core 3.1 (module *ASP.NET Core/.NET Core: Runtime & Hosting Bundle*).

To do so, follow the link at <u>https://dotnet.microsoft.com/download/dotnet-core/3.1</u> and download the installer as shown on Figure 2 below.

ASP.NET Core Runtime 3.1.15

The ASP.NET Core Runtime enables you to run e> applications. On Windows, we recommend inst which includes the .NET Runtime and IIS supp

IIS runtime support (ASP.NET Core Module v2 13.1.21106.15

os	Installers	Binaries
Linux	Package manager instructions	Arm32 Ar x64 Alpine
macOS		<u>x64</u>
Windows	Hosting Bundle x64 x86	<u>Arm32 x@</u>

Figure 2 – Downloading .Net Core 2.2 installer

Now install *dotnet-hosting-3.1.15-win.exe*, as shown on figures below, Figure 3-Figure 5.



Figure 3 – Installing .Net Core 3.1 – step 1



Figure 4 – Installing .Net Core 3.1 – step 2



Figure 5 – Installing .Net Core 3.1 – step 3

2.1.2. Running installer

After setting up system for CoGIS installation you can proceed with the installation itself. To do so, start *COGIS.Installer.ru.8.0.msi*, and press *Next*, see Figure 6.



Figure 6 – Starting CoGIS installer

2.1.3. End-user license agreement

At the next step of CoGIS installation you need to read the End-user license agreement, check the box to accept its terms and conditions and press Next, see Figure 7.



Figure 7 – End-user license agreement

2.1.4. Installation folder

At this step you need to specify installation folder for CoGIS.

You can press *Next* to install CoGIS to the default installation folder, or <u>Change</u>, to select the other folder, see Figure 8.

CoGIS 8.0.3196 Setup		—		×
Destination Folder Click Next to install to the default folder or clic	k Change to choose	another.	cog	gis
Install CoGIS 8.0.3196 to:				
C:\COGIS\ Change				
	<u>B</u> ack	<u>N</u> ext	Cance	į

Figure 8 – Installation folder

Note: For your convenience you can install eLiteGIS and CoGIS to one directory, for example, C:\COGISEnterprise\.

2.1.5. Applications parameters for IIS

At this step of CoGIS installation you need to specify applications names for Internet Information Services or keep the default names, see Figure 9.

😽 Installing CoGIS 8.0.3196	—		×
Deploy to IIS	S	cog	is
	P		
WEB Application name Cogis WEB Application name (mobile version)			
cogismobile			
CoGIS requires .NET Core 3.1 (module "ASP.NET Core Runtime: Hosting Bundle") to work https://dotnet.microsoft.com/download/dotnet-core/3.1			
Config <u>B</u> ack <u>N</u> ex	đ	Cancel	

Figure 9 – Applications parameters for IIS

If needed, you can press *Config* to select site binding and press OK. By default, the Http option is selected, see Figure 10.

付 Config				\times
Select binding	g type of IIS si	ite		
) Http	◯ Https	◯ Custom		
			ОК	

Figure 10 – Site binding

Press *Next* to get to the next step, see Figure 11.

Config	<u>B</u> ack	Next	Cancel
--------	--------------	------	--------

Figure 11 – Proceeding to installation

2.1.6. Installation

At this step, the CoGIS installation will be done. Press *Install* as shown on Figure 12 to start the process.



Figure 12 – Staring CoGIS installation process

The progress bar showing the installation process will appear, see Figure 13.

Status: Installing Config Keys and Values	Please wait	while the Setup Wizard installs CoGIS 8.0.3196.
	Status:	Installing Config Keys and Values

Figure 13 – Installing CoGIS

2.1.7. Installation completion

Upon CoGIS installation completion, the appropriate message will appear, see Figure 14.

Check the box for *Enter license key* to register the product and press *Finish*.



Figure 14 – Installation completion

2.1.8. Installing license

The dialog of *License manager* will appear, press *Install new license*, see Figure 15.

👿 License Manager			- 🗆 X
Products	Installed licenses		Install new license
	Ad	tive Product License	type

Figure 15 – License manager

In the appeared dialog *Product registration* select the product registration type and press *Next*, see Figure 16.



Figure 16 – Selecting product registration type

If the *Activation key* option is selected, enter the respective activation key as shown on Figure 17, and press *Next*.

3 Product registration	—		Х
Enter your activation key: NMNMJ-VJF44-4XIIS-VE4XA-D4J47			
Your computer ID: E7A1-2819			
Back		Cancel	

Figure 17 – Entering activation key

If *Multiline license code* option is selected, which is generated by computer ID, enter the respective code, see Figure 18, and press *Next*.

2 Product registration		×
Enter vour multiline license code:		
COGIS 8.0 LICENSE KEY BEGIN	 	^
AlPfQHe3ppSPFEnIMwNkxcmpTP1u+sMDYq4YcGKg		
EocKrNCWK5xc7JxjMkVr88YFbvgcz0GqE4uhMQ8i		
R824qLaSh6JB604xihTqMJzxz90/hheMM+gHvrkd		
BzaENKI/V9ZzMhz2ZYXUa48xLVJpdOvVb3PPsRaP		
L+IdUHLKBOrRC8VI190WQ1tgYqtMOdZAoW6Mznk/		
CZ+A/RCbIjF0bX24XuyYFJjWsRe93dRfAZ1RxsxM		\sim
Back	 Cance	el l

Figure 18 – Entering multiline license key

In the appeared dialog select Activate now by Internet, see Figure 19, and press Next.

💹 Product registration		—		×
Product activation requires: Activate now by Internet Proxy settings 				
 Activate by email (May be time consuming) 				
	Back	Next	Cance	9

Figure 19 – Activating license

Note: if you are not connected to Internet, you can activate your license via email, but this may take some time.

Now select product version that needs to be registered, see Figure 20, and press Next.

3 Product registration	—		×
Select product version to be registered:			
😵 CoGIS 8.0			
Back		Cance	l

Figure 20 – Selecting product version

The message saying about successful product registration will appear, see Figure 21.

3 Product registration	_		×
Product registered successfully			
Froduct registered successiony.			
CoGIS 8.0 Trial License			
The license is valid through 02 September 2021			
Back OK		Cancel	

Figure 21 – Registration completion

Press OK.

The installed license will appear in the *License manager*, see Figure 22.

💹 License Manager		- 🗆 X
Products	Installed licenses	Install new license
✓ Data East, LLC	Active Product	License type
▲ CoGIS 8.0	😵 Activate 😵 Uninstall Yes CoGIS 8.0 Trial Lice	nse
	<	>

Figure 22 – Installed license

Close *License manager*, CoGIS installation and registration are completed.

2.1.9. Primary setting and performance testing

2.1.9.1. Starting IIS

For primary setting and testing CoGIS performance you need to start Internet Information Services (IIS) Manager first.

Press WIN+S to open the search field and enter IIS. In the search results list select Internet Information Services (IIS) Manager, and run the program, see Figure 23.

Searc	h
Everywhe	ere 🗸
IIS	٩
	nternet Information Services (IIS) Aanager

Figure 23 – Running IIS

Now make sure that server is started, otherwise, press *Start*, see Figure 24.

V]	Internet Information Services (IIS) Manager	- • ×
🕞 🎯 🎙 🕨 < имя ко	омпьютера>	🔤 🖂 🙆 🕶
Eile View Help Connections	AIR8 Home Filter:	Actions Manage Server Restart Stop View Application Pools View Sites Change .NET Framework Version Get New Web Platform Components Restart Help
< >> Ready	Session State SMTP E-mail	 Restart Start Stop



Now make sure that Default Web Site is started, otherwise press *Start*, see Figure 25.

N	Internet Informat	tion Services (IIS) I	Manager	- 🗆 🗙
€ Э ій к <имя к	омпьютера> → Sites	F		😰 🖂 🟠 🔞 🗸
<u>F</u> ile <u>V</u> iew <u>H</u> elp				
	Sites		Actions Kename View Applica	tions
Application Pools	Filter:	▼ ♥ Go ▼ ID Status	View Virtual [Directories
Default Web S	Contraction of the second seco	1 Stopped (http)	Manage Website	
			Start Stop	 Start Stop
			Browse Web	vsite http)
			Advanced Se	ttings
			Configure Failed Reque Limits	st Tracing
	<	2	Add FTP Pub	lishing
< >	Features View	ontent View	🕡 Help	~
Ready 📲 ::				

Figure 25 – Starting Default Web Site

2.1.9.2. Setting and testing CoGIS

For setting and testing CoGIS open CoGIS Portal from Internet Information Services (IIS) Manager, see Figure 26.





Now (at <u>http://localhost/cogis</u>) CoGIS Portal tab will open. Press *Administration* and select *Settings* item in the drop down list, see Figure 27.

🐯 Каталог интерактивных карт С 🗲	0		- • ×
\leftarrow \rightarrow C (i) localhost/cogis	3		☆ :
SCOGIS Каталог карт	Администрирование 👻		Войти
	Конструктор Правила SOE Учетные записи Управление файлами Сервисы Настройки	ז CoGIS	
	Каталог карт	пустой	
© Дата Ист https://cogis.datae	east.com		

Figure 27 – Starting CoGIS Portal

In the *General settings* tab specify path to /eLiteGIS.SOE folder from directory with installed eLiteGIS, see Figure 28.



Администрирование 🔻

Общие настройки	Файловые хранилища 🕀	
Пользовательский интерфейс	Название	Путь до корневой папки
Список ГИС-серверов	: Портал (Арр. Data)	/COGIS.FrontEnd/App Data
Права для администраторов	:	···· ++
Личный кабинет, авторизация и регистрация	: Портал (Customer)	/COGIS.FrontEnd/wwwroot/Customer
Управление учетными записями пользователей	: Мобильный сервис (App_Data)	/COGIS.Mobile/App_Data
SMTP сервер	: SOE	C:/eLiteGIS/eLiteGIS.SOE
Технические работы	: Логи	/COGIS.Logs
	: Оффлайн карты	/COGIS.Mobile.Offline.Maps
	: Шаблоны отчетов	/COGIS.FrontEnd.ReportTemplates

Каталог карт

Figure 28 – Setting CoGIS (1)

In the GIS servers list tab fill in the appropriate fields, see Figure 29:

- Public URL: <u>http://<имя компьютера>/elitegis</u>
- URL: <u>http://localhost/elitegis</u>
- Login: admin
- Password: admin.

S	cogis	Каталог карт	Администрирование 👻	
Общие настройки Пользовательский интерфейс	ГИС-сервера 🕀			~
Список ГИС-серверов	: 100-сервер р			~
Права для администраторов	Публичный URL	http:	//<имя компьютера>/elitegis	(ightarrow)
Личный кабинет, авторизация и регистрация	Windows домен			
Управление учетными записями пользователей SMTP сервер	Доступ для админи	стрирования		
Технические работы	URL	http:	//localhost/elitegis	\ni
	Логин	adm	in	
	Пароль	adm	in	
	🗆 Шифр	овать логин-парс	оль при сохранении настроек	
	Portal	for ArcGIS		

Figure 29 – Setting CoGIS (2)

2.2.Installing on Linux OS

2.2.1. Setting up Windows environment for connection with Linux The following steps should be done:

Install PuTTY client, download installation package at https://www.putty.org/.

Install WinSCP client, download installation package at <u>https://winscp.net/eng/download.php</u>.

Create new connection to Linux in PuTTY: enter session name and press Save, see Figure 30.

🕵 PuTTY Configuration	? ×	
Category:	Pasia actions for your PuTTY assesson	
 Session Logging Terminal Keyboard Bell Features Window Appearance Behaviour Translation Selection Colours Connection Data Proxy Telnet Rlogin SSH Serial 	Basic options for your PuTTY session Specify the destination you want to connect to Host Name (or IP address) Port 192.168.0.139 22 Connection type: Rlogin • SSH Raw I elnet Raw I elnet Rod, save or delete a stored session Saved Sessions Default Settings WinSCP temporary session build-linux Delete Close window on exit: Always Never Only on clean exit	
<u>A</u> bout <u>H</u> elp	<u>O</u> pen <u>C</u> ancel	

Figure 30 – Creating new connection to Linux in PuTTY

To open connection press *Open* and enter login and password in the appeared window, see Figure 31 and Figure 32.



Figure 31 – Opening connection in PuTTY: entering login





Same way connect to Linux via WinSCP, see Figure 33 and Figure 34.

퉒 Login	- 🗆 X
 New Site build_centos Build-CentOS centos dataadmin@192.168.10.10 dataeast@dev dataeast@dev-root minzdrav nche@192.168.0.62 	Session Eile protocol: SFTP Host name: Port number: 192.168.0.139 User name: Password: dataeast Save Advanced T
<u>I</u> ools ▼ <u>M</u> anage ▼	🔁 Login 🔽 Close Help

Figure 33 – Connecting to Linux via WinSCP (1)

Am publich - dataesartig 192, 188, 0.139 - Vin, SCP Local Mark Files Command: Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Sexion Options Bemote Help Image: Some monaits Help Image: Some Help Image: Some Help Image: Some Help										
local Mark Elles Commands Sexion Options Bernote Help to detecting 192.168.0139 X Properties Properties New X Sexion Clack V/VICtstvellet Consolebin/Melesser Venetoresp2.2/public/ Name Clack V/VICtstvellet Consolebin/Melesser Venetoresp2.2/public/ Name Clack V/VICtstvellet Consolebin/Melesser Venetoresp2.2/public/ Name Clack V/VICtstvellet Consolebin/Melesser Venetoresp2.2/public/ Name Size Type Properties Properties New X To V File Folder Properties Properties Properties New X To V Properties Properties Properties New X To V Properties Properties Properties New X To V Properties Properties Properties Properties New X To V Properties Properties Properties New X To V Properties Properties Properies Properties Properties Properties Properies Properties	🌆 publish - dataeast@192	.168.0.139 - V	VinSCP					-		×
By Synchronize By B	Local <u>M</u> ark <u>F</u> iles <u>C</u> omm	nands <u>S</u> essio	n <u>O</u> ptions <u>R</u> emote <u> </u>	Help						
• datasat@192.168.0139 × • New Session • C Local Disk • • • • • • • • • • • • • • • • • • •	🖶 🔁 📚 Synchronize	🗩 🦸 🛃	🛾 🕼 🎒 Queue 🗕	Transfer Settings Default	- I 🥔 -					
C. Clocal Disk Image: Imag	📮 dataeast@192.168.0.139	9 🗙 🚅 Ne	w Session							
Lipload Edit * * * * * * * * * * * * * * * * * * *	🟪 C: Local Disk 🔹 🝷 🚰	• 🔽 •	+ • → • 🗈 🖍	🏫 🤁 🐾	📕 dataeast 🔹 🚰	• 🗑 • 🗇 •	🗈 🖬 🎜	🔍 Find Files	20	
CriteCVIReStrictIteConsole/blin/Release-ventcoreapp2.2/publisi/v Name Size Type Changed Parent directory 19.02.2020 13:52:24 Infinite Console.dll 813 K8 Application exten 18.02.2020 124:340 eliteConsole.dll 6K8 Application exten 19.02.2020 12:17:29 eliteConsole.dll 5K9 K9 Frige 19.02.2020 12:17:30 eliteConsole.pdb 2 K8 Program Debug D 19.02.2020 12:17:29 f eliteConsole.pdb 3 00 67 K8 S0 File 19.02.2020 13:51:19 Configuration of the transformation of tran	🗐 🕼 Upload 👻 📝 Edit 👻	×db	Properties 📑 New	- + - V	📓 🔐 Download 👻 📝	' Edit 👻 🚮	🔓 Properties 🛛 😁 New			
Name Size Type Changed Name Size Changed Rights Owner International contractions Parent directory 19.02.2020 13:52.24 19.02.2020 13:52.24 19.02.2020 12:17:29 19.02.2020 12:02 19.02.2020 12:02 19.02.2020 12:02 19.02.2020 12:02 19.02.2020 12:02 <t< td=""><td>C:\etc\src\Tests\eLiteConso</td><td>le\bin\Releas</td><td>e\netcoreapp2.2\publi</td><td>sh\</td><td>/home/dataeast/</td><td></td><td></td><td></td><td></td><td></td></t<>	C:\etc\src\Tests\eLiteConso	le\bin\Releas	e\netcoreapp2.2\publi	sh\	/home/dataeast/					
■ Parent directory 19.02.2020 13:52:24 File folder 17.02.2020 14:03:52:24 File folder 17.02.2020 12:02:02:02:02:02:02:02:02:02:02:02:02:02	Name	Size	Туре	Changed	Name	Size	Changed	Rights	Owner	
Image: winding: w	►		Parent directory	19.02.2020 13:52:24	t		20.04.2020 14:04:13	rwxr-xr-x	root	
Atemiko.eliteMap.dll 813 KB Application exter 18.02.2020 12:42:40 Atemiko.eliteMap.dll 6KB Application exter 19.02.2020 12:17:29 LeticConsole.depsjon 2 KB JSON File 19.02.2020 12:17:30 LeticConsole.runtime 1 190.2.2020 12:17:30 19.02.2020 12:17:29 LeticConsole.runtime 30.067 KB SO File 19.02.2020 13:51:19 Jocarymap.so 30.067 KB SO File 19.02.2020 13:51:19 Jocarymap.so 30.067 KB SO File 19.02.2020 13:51:19 OB of 30,1 MB in 0 of 7 OB of 0B in 0 of 0 6hidden Command > So File So File	📙 runtimes		File folder	17.02.2020 14:33:52						
 e Lite Console.deps.json 2 KB JSON File 19.02.2020 12.17.29 9.02.2020 12.17.30 9.02.2020 12.17.29 9.02.2020 13.51:19 9.02.2020 13.51:19	🗟 Atemiko.eLiteMap.dll	813 KB	Application exten	18.02.2020 12:42:40						
Image: console.deps.json 2 KB JSON File 19.02.2020 12:17:30 Image: console.pdb 2 KB Program Debug D 19.02.2020 12:17:29 Image: console.pdb 2 KB SO File 19.02.2020 13:51:19 Image: console.pdb 30 067 KB SO File 19.02.2020 13:51:19 Image: console.pdb 30 067 KB SO File 19.02.2020 13:51:19 Image: console.pdb 30 067 KB SO File 19.02.2020 13:51:19 Image: console.pdb 30 067 KB SO File 19.02.2020 13:51:19 Image: console.pdb 30 067 KB SO File 19.02.2020 13:51:19 Image: console.pdb 30 067 KB SO File 19.02.2020 13:51:19 Image: console.pdb Image: console.pdb SO File 19.02.2020 13:51:19 Image: console.pdb Image: console.pdb Image: console.pdb Image: console.pdb Image: console.pdb <td>🗟 eLiteConsole.dll</td> <td>6 KB</td> <td>Application exten</td> <td>19.02.2020 12:17:29</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	🗟 eLiteConsole.dll	6 KB	Application exten	19.02.2020 12:17:29						
Image: Second	🗐 eLiteConsole.deps.json	2 KB	JSON File	19.02.2020 12:17:30						
B eLite Console.pdb 2 KB Program Debug D 19.02.2020 12:17:29 C carrymap.so 30 067 KB SO File 19.02.2020 13:51:19 D B of 30,1 MB in 0 of 7 OB of 0 B in 0 of 0 6 hidden Command >	I eLiteConsole.runtime	1 KB	JSON File	19.02.2020 12:17:30						
carrymap.so 30 067 KB SO File 19.02.2020 13:51:19 08 of 30,1 MB in 0 of 7 08 of 08 in 0 of 0 6 hidden Command >	eLiteConsole.pdb	2 KB	Program Debug D	19.02.2020 12:17:29						
08 of 30,1 MB in 0 of 7 08 of 08 in 0 of 0 6 in 0 of 0 6 hidden Command > •	Carrymap.so	30 067 KB	SO File	19.02.2020 13:51:19						
0 B of 30,1 MB in 0 of 7 0 0 B of 0 B in 0 of 0 6 hidden Command > *										
0 B of 30,1 MB in 0 of 7 0 0 B of 0 B in 0 of 0 6 hidden Command > 7										
0 B of 30,1 MB in 0 of 7 0 0 B of 0 B in 0 of 0 6 hidden Command > 7										
08 of 30,1 MB in 0 of 7 0B of 0B in 0 of 0 6 hidden Command > •										
08 of 30,1 MB in 0 of 7 08 of 08 in 0 of 0 6 hidden Command > 7										
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0B of 30,1 MB in 0 of 7 0B of 0B in 0 of 0 6hidden Command >										
0B of 30,1 MB in 0 of 7 0B of 0B in 0 of 0 6hidden Command > •										
0 B of 30,1 MB in 0 of 7 0 0 B of 0 B in 0 of 0 6 hidden Command > *										
0 B of 30,1 MB in 0 of 7 0 B of 0 B in 0 of 0 6 hidden Command >										
0 B of 30,1 MB in 0 of 7 0 0 B of 0 B in 0 of 0 6 hidden Command >										
Command >	0 B of 30,1 MB in 0 of 7				0 B of 0 B in 0 of 0				61	hidden
	Command >									•
🔒 SFTP-3 💷 0:01:10								SFTP-3 🗐	0:01	:10

Figure 34 – Connecting to Linux via WinSCP (2)

2.2.2. Setting up Linux before installing CoGIS

The following steps should be done to set up Linux before installing CoGIS:

Update system performing the following commands:

sudo apt-get update sudo apt-get upgrade

Install dotnet core runtime performing the following commands:

```
wget https://packages.microsoft.com/config/ubuntu/18.04/packages-
microsoft-prod.deb -0 packages-microsoft-prod.deb
sudo dpkg -i packages-microsoft-prod.deb
sudo add-apt-repository universe
sudo apt-get update
sudo apt-get install apt-transport-https
sudo apt-get update
sudo apt-get install aspnetcore-runtime-2.2
```

In the last command the version number is specified.

Install NGINX performing the following command:

sudo apt-get install nginx

Install PostgreSQL и PostGIS performing the following command:

sudo apt install postgresql postgis

Note: At the time of writing this instruction, version 10.12 and PostGIS 2.4 are installed.

Change password for PostgreSQL performing the following commands:

```
sudo su - postgres
psql -c "alter user postgres with password '1'"
exit
```

Set up PostgreSQL for remote connections.

Note: This step can be omitted for the security purposes. But if you plan to work with server remotely, you need to follow the instructions provided below.

To set up remote connections to PostgreSQL (see Figure 35), edit configuration file: add option to connect externally, add line *host all all 0.0.0/0 md5*. Besides, change all authentication methods to md5:

🧬 dataea	ast@vm-cogis-ubuntu:	~		_		×
GNU na	ano 2.9.3	/etc/	postgresql/10/main/pg_hba.conf		Modified	^
# TYPE	DATABASE	USER	ADDRESS	METHOD		
# "local	l" is for Unix (domain s	socket connections only			
local	all	all		md5		
host	all	all	0.0.0/0	md5		
# IPv4]	local connection	ns:				
host	all	all	127.0.0.1/32	md5		
# IPv6 3	local connection	ns:				
host	all	all	::1/128	md5		
# Allow	replication com	nnection	ns from localhost, by a user with	the		
<pre># replic</pre>	cation privilege	2.				
local	replication	all		md5		
host	replication	all	127.0.0.1/32	md5		
host	replication	all	::1/128	md5		
ng Get I	Help 🔨 Write (Dut ^W W	Nere Is AK Cut Text AJ Justify	$^{\circ}$ C Cu	r Pos	
^X Exit	^R Read F:	ile ^\ F	Replace <mark>^U</mark> Uncut Text <mark>^T</mark> To Spell	. ^_ Go	To Line	\sim

sudo nano /etc/postgresql/10/main/pg_hba.conf

Figure 35 – Setting up remote connections to PostgreSQL (1)

Open access for external connections. Here you can also edit maximal number of connections, see Figure 36:

```
sudo nano /etc/postgresql/10/main/postgresql.conf
```



Figure 36 – Setting up remote connections to PostgreSQL (2)

Now restart PostgreSQL with the following command:

```
sudo systemctl restart postgresql
```

Setting up Linux is finished.

2.2.3. Setting NGINX

In order to set *reverse proxy* in NGINX, you need to build configuration and redirect requests to the appropriate CoGIS components. To do so, the following steps should be done:

Delete the previous settings, performing the following command:

```
unlink /etc/nginx/sites-enabled/default
```

Go to directory of available sites:

cd /etc/nginx/sites-available

Create configuration:

nano reverse-proxy.conf

Content of reverse-proxy.conf file is as following:

server {

listen 443;

access_log /var/log/nginx/reverse-access.log;

```
error_log /var/log/nginx/reverse-error.log;
server_name SERVERNAME localhost;
ssl on;
ssl_certificate /etc/nginx/ssl/cert.crt;
     ssl_certificate_key /etc/nginx/ssl/cert.key;
client_max_body_size 100M;
location /gis/ {
          proxy_pass http://127.0.0.1:5000/;
}
location /portal/ {
          proxy_pass http://127.0.0.1:5001/;
}
location /elitegismanager/ {
          proxy_pass http://127.0.0.1:5002/;
}
location /mobile/ {
          proxy_pass http://127.0.0.1:5003/;
}
}
```

Copy link to the new configuration:

```
ln -s /etc/nginx/sites-available/reverse-proxy.conf /etc/nginx/sites-
enabled/reverse-proxy.conf
```

Reload NGINX:

nginx -s reload

2.2.4. Installing CoGIS

After all the preliminary steps you can proceed with CoGIS installation as follows:

Connect to Linux via WinSCP.

Copy packages as shown on Figure 37.

🌆 Distrib - 192.168.0.139 -	WinSCP						-		×
Local <u>M</u> ark <u>F</u> iles <u>C</u> omm	iands <u>S</u> essio	n <u>O</u> ptions <u>R</u> emote	<u>H</u> elp						
🔛 🎫 📚 Synchronize	🗩 🦑 📓	🛯 🧼 👔 Queue 🗣	Transfer Settings Default	- 💋 -					
📮 192.168.0.139 × 🚅	New Session								
🔄 💶 D: raid 🔹 🝷 🚰	• 🔽 •	🔶 🔹 🚽 🔹 🔁	🏠 🤁 💁	📙 dataeast 🔹 🚰 🔹 🝸		-> - 🖻 🗖 🎜	l 🔯 Find Files	P	
📑 📑 Upload 👻 📝 Edit 👻	🗙 🏑 🕞	Properties 📑 New	- + - V	🛛 📄 Download 👻 📝 Edit	- X 🚽	🕞 Properties 📑 Nev	w • 🚺 🗕 ∀		
D:\Distrib\				/home/dataeast/					
Name cogis_8.0.2822_x86_64 lelitegis_8.0.761_x86_6	Size 18 855 KB 67 270 KB	Type Parent directory DEB File DEB File	Changed 21.04.2020 11:49:02 20.04.2020 15:42:09 21.04.2020 9:41:37	Name cogis_8.0.2822_x86_64 elitegis_8.0.761_x86_6	Size 18 855 KB 67 270 KB	Changed 20.04.2020 14:04:13 20.04.2020 15:42:09 21.04.2020 9:41:37	Rights rwxr-xr-x rw-rw-r rw-rw-r	Owner root dataeast dataeast	
0 B of 84,1 MB in 0 of 2				0 B of 84,1 MB in 0 of 2				8 h	idden
Command >									•
							SFTP-3 🗐	0:02:	11

Figure 37 – Copying packages

Go to PuTTY and start installation as following:

sudo dpkg -i elitegis_8.0.761_x86_64.deb

sudo dpkg -i cogis_8.0.2822_x86_64.deb

Configure CoGIS, see Figure 38:

sudo /usr/cogis/setup

🗬 dataeast@vm-cogis-ubuntu: ~	_	х
dataeast@vm-cogis-ubuntu:~\$ sudo /usr/cogis/setup		\wedge
CoGIS external host: 192.168.0.139		
CoGIS root url: http://192.168.0.139/portal/		
GisServer url: http://192.168.0.139/gis		
GisServer admin login: admin		
GisServer admin password:		
Re-enter admin password:		
dataeast8vm-cogis-ubuntu:~\$		
		\sim

Figure 38 – Configuring CoGIS

For fine tuning use the following command:

sudo nano /usr/cogis/frontend/App_Data/settings.xml

Now **install license** performing the following command, see Figure 39:

```
sudo dotnet /usr/cogis/licensing/DataEast.Licensing.Console.Manager.dll
activate -k JAIIS-HJWA2-3EWC2-VYPX9-EK2R9 -a "/usr/cogis/licensing/CoGIS
8.0.appinfo"
```



Figure 39 – Installing license

Restart server performing the following command:

sudo systemctl restart cogis

CoGIS is installed.

2.3.Checking out work of the test map

In order to verify work of the test map, go to eLiteGIS Manager, *Services* tab. Make sure that WorldMap service is started (Status: запущен) and follow the service link, see Figure 40.

::::::::::::::::::::::::::::::::::::::	💮 Сервисы 🧏 Настройкі	и 🙁 Пользова	тели и группы 🔳	ЭЛицензировани	е 🚊 Личный кабинет
លៃ / eLiteGIS.Service	25				ک ک
Содержимое папки					
土 Загрузить файл	Или перетащите его сюда	+ ~	Q Введи	ите строку для по	иска
ф ямИ	Последние изменения 🝦	Тип сервиса	Тип карты	Статус	
Utilities	25.3.2020 16:33				⊥ ⊥ ⁄ [2
- WorldMag	28.2.2020 10:02	map	eLiteGIS CMF2	► II	■ ± ± ∠ ⊠

Figure 40 – Getting information about test service

In the new tab of the browser the information about service in JSON format will be shown. Copy address of published service, see Figure 41.



Figure 41 – Information about service in JSON format

Now check the work of published web map service in CoGIS, see Figure 42:

- Go to CoGIS Designer (1)
- Add online map (2)
- In Services tab (3) press Add service -> Map service (4)
- To the URL line paste the WorldMap service address copied from eLiteGIS Manager (5)
- Save the map (6)
- Open the map (7)

😵 Конструктор CoGIS	× eLiteGIS Manage	рег - Выбор серви 🗙 🕂	- 🗆 🗙
$\epsilon \rightarrow c$ (i) localho	ost/cogis/catalog/admin#Map_	p_1	☆ :
Каталог карт 🛛 🗙	Scogis	Каталог карт Администрирование 🕶 6	
Администрирование Конструктор 1	Г⊋ <mark>Щ</mark> & Щ [҈ ∨ (Поиск	ID Мар_1 Имя Название в Конструкторе	() 🔢 🕑
Правила SOE Учетные записи	Корневая папка 💡	Версия 1 🕒 🕂	<i></i>
Управление файлами		Дооавить сервис 4 Основные сервисы карты (1)	
Сервисы Настройки		3 € ∰ WorldMap Ø	
		Url http://<имя компьютера>/elitegis/rest/services/WorldMap/MapS	Server $ ightarrow ightarr$

Figure 42 – Opening map based on web map service published in eLiteGIS

Example of correctly opened map is shown on Figure 44.



Figure 43 – Viewing published map in web browser

Checking out is finished.

2.4. Installing and updating SOE

2.4.1. Installing and updating SOE. General information.

SOE is an abbreviation for Server Object Extension that CoGIS uses to extent functionality of map services. SOE is provided to:

1) Create and then update and delete on online map:

- Objects in map service layer and their values; edit objects geometry; combine objects;
- Records in attribute tables of map service;
- Files attached in Identification dialogs or attached to records in attribute tables.
- 2) Add and delete relationships:
 - One to one. When creating or updating object in layer, it is related with object of another layer by key field.
 - One to many. When creating or updating object in layer, it is related with objects of another layer by key field.
 - Many to many. When creating or updating objects in layer, they are related with objects of another layer by key field.
- 3) Limit editing by:
 - operations;
 - groups of users;
 - layers;
 - objects values;
 - territory;
 - objects.
- 4) Run geotriggers:

- creating relations;
- editing related objects;
- updating field;
- geocoding;
- building buffer zone;
- sending messages
- updating topology;
- calculating relations numbers;
- calculating geometry attributes.

GEOTRIGGERS OPERATE AUTOMATICALLY WHEN PERFORMING OPERATION OF 'EDIT' PLUGIN.

5) Limit views and requests by:

- groups of users;
- layers;
- objects.
- 6) Track editing history by operations. Restore object after changes.

7) Download data from file of SHP, XLS, XLSX, CSV, GPX formats to map service layer added to online map.

8) Upload data from map service layer as files of SHP, XLSX, CSV formats.

9) Convert data while download using custom coordinate systems and transformation parameters.

10) Display files attached in Identification dialogs or to records in attribute tables, in Picture gallery, and establish condition to:

- number of files allowed to be attached to object;
- total number of files for layer;
- scale;
- attachment file size.
- 11) Store files on disk outside database. Work with user attachment attributes.
- 12) Specify calculation of:
 - objects in layer;
 - records in table;
 - objects considering layer symbology by unique values, by ranges.

CALCULATION IS MADE BASED ON FILTERS SPECIFIED IN COGIS DESIGNER AND SET BY USERS ON ONLINE MAP.

- 13) Perform advanced search for objects, namely:
 - quick and flexible search by map service layers;
 - search based on filters selected by the user;
 - sorting search results by distance;
 - search based on restrictions by SQL condition, by territory.

SOE allows to use:

- geotriggers run while performing one of the editing plugin operations;
- requests catcher provided to limit access to data using different criteria.

2.4.2. Installing SOE

Installation of SOE depends on operating features of GIS server.

You can install SOE as following:

 By using CoGIS; By standard means of ArcGIS for Server, to learn more, visit <u>https://enterprise.arcgis.com/en/server/latest/develop/linux/deploying-an-</u> <u>extension.htm</u> and <u>https://resources.arcgis.com/en/help/server-admin-</u> <u>api/registerExtension.html</u>.

To install SOE using CoGIS, go to *Administration* menu and select *Services*. The page shown on figure below, will appear, see Figure 44.

စ္ခြာငogis	Каталог карт	Администрирование 👻
ГИС-сервер	▼ ГИС-сервер	Конструктор Расширения сервисов Учетные записи Управление файлами Сервисы Настройки

Figure 44 – Installing SOE

This page is provided for managing services of GIS server, with which the connection is established. The process of connection to GIS server is provided below, see section 3.2.1. Select GIS server on which SOE will be installed.

In the lower left corner press Установка SOE and select one of the provided variants in the appeared dialog:

- Install from *App_Data\soe*;
- Select file specify *CoGIS.Core.Soe.CompositeSoe.soe*.

For each map service in CoGIS Designer in *Services* tab establish connection to *CoGIS SOE for map service*, and set its working rules at *Расширения сервисов* page.

2.4.3. Updating SOE

Due to some peculiarities in work of ArcGIS for Server (in case if ArcGIS for Server and not eLiteGIS is used as GIS server), the process of updating SOE should be done in several steps. The process should be strictly followed otherwise the proper work of map services is not guaranteed.

• Stop all map services to which SOE has been connected. To do so, press *Batch processing* in the lower left corner of the *Services* page. The window shown on Figure 45 will appear.

	Пакетная обработка	>
Messages		
ServerLink		
Symbols2		
Users		

Figure 45 – First step of SOE updating

Select names of all map services to which SOE has been added and press Stop.

- 1. Stop ArcGIS for Server
- 2. Delete LOCK-, RLOCK- and WLOCK lock files from C:\arcgisserver directory
- 3. Run ArcGIS for Server
- 4. Install SOE as described in section 2.4.2.
- 5. Repeat Step 2 and 3.

Run all previously stopped map services to which SOE has been added.

3. Setting CoGIS

3.1.Setting CoGIS. General information.

After installing CoGIS, it should be set. To do so, in Administration menu select General settings. The settings page shown on Figure 46 will appear. The navigation tabs are located in the left part of the settings window. All CoGIS settings are specified on this page.

Scogis Каталог карт		Администрирование 👻	
Общие настройки		Конструктор	
Пользовательский интерфейс	713 DIRVI	Правила SOE	
Список ГИС-серверов	Язык по ук	Учетные записи	
Права для администраторов	Стартовая	Управление файлами	
Личный кабинет, авторизация и регистрация	Стартовая	ларавление факлами	
Управление учетными записями пользователей	URL сайта	Сервисы	
SMTP-сервер		Настройки мобильного сервиса	
Технические работы	Путь до па	Настройки	

Figure 46 – CoGIS settings page

3.2.Connection to GIS server

3.2.1. Connection to GIS server. General information.

You need to establish connection to GIS server where map and other services are published. Services are used for work with online and offline maps. After establishing connection to GIS server, you will be able to:

- Authorize CoGIS user on GIS server, get token to build requests to services of GIS server;

 Get list of authorized users and user groups from GIS server, based on which CoGIS elements' access rules are specified;

- Register CoGIS user on GIS server;
- Change registration parameters of CoGIS users on GIS server;
- Get list of services of GIS server, run and stop them, update service extensions.

To connect to GIS server, go to GIS servers list shown on Figure 47.

Общие настройки	FUC-censena (+)
Пользовательский интерфейс	:
Список ГИС-серверов	: FMC-censen
Права для администраторов	×
Личный кабинет, авторизация и регистрация	
Управление учетными записями пользователей	
SMTP сервер	http://vm-test5/gisserver
Технические работы	Windows домен
	Доступ для администрирования
	URL
	http://localhost/gisserver
	Логин
	Пароль
	Шифровать логин-пароль при сохранении настроек

Figure 47 – Connecting to GIS server

Establish connection between web server where CoGIS is deployed and GIS server. To do so, enter GIS server address to the *URL* field. This address can be available only within server infrastructure web server-GIS server. GIS server will receive and process users' requests. For example, to registered user GIS server will assign token based on which the user will further get responses to his requests

If GIS server is deployed on same server, where web server is deployed, you can use the following address: <u>http://localhost/<имя ГИС-сервера>.</u>

To authorize account of GIS server administrator, enter login and password. If you want that login and password will not be explicitly displayed on this tab and saved, cipher it, checking *Encrypt credentials* option. Encrypted data is stored in XML file of CoGIS settings on web server.

If in the selected IIS service *Windows authorization* has been specified as web server, enter the Windows domain name of your network.

For work with online and offline maps in *CoGIS Designer* you will need services. To build requests to services, in *Public URL* field enter address of GIS server where these services have been published. To avoid possible errors, make sure that address of service mentioned in *CoGIS Designer* contains the address of GIS server specified here, for example, as shown on Figure 48.

Настройки

Общие настройки			ГИС-сервера 🕀
Попезовательский интерфейс			
Список ГИС-серверов			ГИС-сервер 🖉
Права для администраторов			×
Личный кабинет, авторизация и ре	гистра	ция	Dušnuucu IIDI
Управление учетными записями п	ользова	ателей	
SMTP censen			http://vm-test5/arcgis
Конструктор			Каталог карт Администрирование 👻
	∕∕× j		ID Мар_2 Имя Название в Конструкторе 🕚 🎛 🔿 Версия 1 🕒 🕂
Корневая папка	8 7	Ē	Добавить сервис Разверн
🔺 🛅 Папка1	0		
💭 Интерактивная карта11 💭 Интерактивная карта12	⊘	€6	: A 🖾 Symbols2 🖉
Папка2	0	ē	url http://vm-test5/arcgis/rest/services/Symbols2/MapServer
ПИнтерактивная карта	0		
🗅 Интернет-страница	0	\square	😂 Данные 🔟 Карта 😂 Легенда 🔍 Поиск (= Карточка объекта 🌐
			🔲 🍸 Определяющие запросы (=)

Figure 48 – Including address of GIS server to address of service

For debugging purposes you can establish connection to multiple GIS servers. When setting users authorization and registration and managing administration access rights, make sure to specify GIS server for which these settings will be applied. To do so, in tabs *Administrator permissions* and *Personal account, authorization and registration* select GIS server in the dropdown list, as shown on Figure 49.

Общие настройки Пользовательский интерфейс		censen	E 110
		червер	ГИС-сервер 🔻
Список ГИС-серверов		структор 🕀	ГИС-сервер
Права для администраторов		Редактирование	Demo

Figure 49 – Selecting GIS server

3.2.2. Restoring password for administrator account

If you cannot login under administrator account after ciphering login and password, you will need XML file of settings stored on web server. In this XML file delete the line with encryption and enter the line with login and password. See Figure 50 with location of this line.

Delete:

<encryptedCredentials>шифp</encryptedCredentials>

Enter:

<login>enter login</login> <password>enter password</password>

Выделенную строчку

- <admin url="http://localhost/arcois" loadAllGroups="false">
- <encryptedCredentials>Q3B/9yGfdu1csPhoLKkxWxP4sNqhavbMzrVX/Y+u18cvK9KJskEuQ5itoBGi3SLo</encryptedCredentials
 <isPortalForArcGIS>talse</isPortalForArcGIS>
 <groupsCheck/>
 </admin>

Замените на:

login> asegare coga seran 	
<isportalforarcgis>talse<groupscheck></groupscheck></isportalforarcgis>	ArcGIS>

Figure 50 – Restoring password for administrator account

3.3. Managing access to web portal administration

By default administration of web portal is allowed to any user.

Administration menu consists of the following items:

- CoGIS Designer provided for creation of main elements of web portal.
- Sandbox provided for access to CoGIS Designer. At that in the sandbox the user gets access to his/her maps only, the option of changing settings for maps of the other users is not provided.
- *SOE rules* provided for extending functionality of map service.
- User accounts provided for managing accounts of users and user groups.
- Files
- Services provided for SOE installation and update, as well as for managing GIS server services.
- Settings.

Specify access rights to *Administration* menu items in *Administrator permissions* tab. For one item you can specify different access rights.

Specify access rights to:

- Page view;
- Settings editing.

You can specify access rights for group of users or for separate user. To do so, select the needed variant from the drop-down list and enter the group or the user's name. For example, on Figure 51 you can view settings, when CoGIS Designer is available for viewing to all authorized user, and editing rights are given to one user only.

Общие настройки	ги	C-censen		ê			
Пользовательский интерфейс		ис-сервер		С-сервер 🔻			
Список ГИС-серверов	Kor	аструктор 🕀					
Права для администраторов		Просмотр 🔹	•	Всем авторизованным	۲	Имя группы/юзера	×
Личный кабинет, авторизация и регистрация		Редактирование	•	Пользователю	Ŧ	ivanov	×

Figure 51 – Setting access rights to Administration menu

List of users registered or authorized on web portal is stored in a table with appropriate fields published as map service on GIS server.

3.4.Logging

For debugging of web portal, define which actions need to be recorded and specify location of the file where these records will be stored. To do so, go to *Global settings* tab, *Logging* section. Set the file size limitation. To allow users to see errors arising during the work, check *Show errors* option. To record users activity, specify frequency of transferring this information to web server where CoGIS is installed.

3.5. Giving web access to web server files

Sometimes during work you need to get access to web server files or folders. For example, to create offline maps, CMF2 files are used. During web portal debugging it is convenient to view log files straightaway. Report on selected thematic layers of online map is made in XLSX format. As a rule, all these files are stored on web server. Besides, in CoGIS you can download files and use them for information purposes, for example, create the link provided for automatic file download.

Prior to set access privileges to web server folders, make sure that full access to these folders is allowed for your account. Then, in CoGIS in *Global settings* tab, in *File storages* section specify folder location and its name that will be displayed to users. The folder content will be available for update and download in the *Files* section of *Administration* menu.

For example, Figure 52 shows location of web server folders and how they are displayed in the *Files* section. If you want to allow web access to files for all users, check the *Allow downloading via web* option for the folder where these files are stored.

Настройки		
Общие настройки	Файловые хранилища 🕀	
Пользовательский интерфейс	Название	Путь до корневой папки
Список ГИС-серверов	OfflineMaps	C:\CoGIS\COGIS.Data.OfflineMap
Права для администраторов		
Личный кабинет, авторизация и регистрация	CoGIS.Mobile	C:\CoGIS\CoGIS.Mobile
Управление файлами		
Каталог кар	Администрирование 👻	
~	Конструктор карт	
Поиск	Расширения сервисов	
D OfflineMaps	Учетные записи	
	Управление файлами	
	Сервисы	
	Настройки	

Figure 52 – Setting access to web server folders

3.6.Setting interface

3.6.1. Setting interface. General information.

You can specify the following interface settings:

- Select interface language;
- Specify welcome page;

- Edit menu;
- Download logo;
- Specify page title in browser;
- Specify footer content.

3.6.2. Language

The interface language is set in *General settings* tab shown on Figure 53.

Общие настройки	O SPIKN	🖉 Русский 🗹 Английский		
Пользовательский интерфейс	ZIJDINI			
Список ГИС-серверов	Язык по умолчанию	Русский 🗸		
Права для администраторов	Craptopag attacutur			
Личный кабинет, авторизация и регистрация	Стартовая страница	Каталог карт 🔹 🔻		
Управление учетными записями пользователей		Map_13	1	
SMTP ceasep		Map_14		

Figure 53 – Selecting interface language

Select interface languages, at the moment English and Russian are available. Select the default language.

3.6.3. Start page

By default the start page is *Map catalog* page described in the *Setting map catalog* section. To redefine the start page, select any other portal element, for example, page or online map from the drop-down list, see Figure 54.

Общие настройки	Языки			
Пользовательский интерфейс	2130101	 Русскии В Англиискии 		
Список ГИС-серверов	Язык по умолчанию	Русский	•	
Права для администраторов	Стартовая страница		5	
Личный кабинет, авторизация и регистрация	Стартовая страница	Каталог карт	•	
Управление учетными записями пользователей		Map_13	^	
SMTP cebeo		Map_14		

Figure 54 – Selecting start page

3.6.4. Menu

You can edit menu adding new items and specifying their representation. Any CoGIS element can be selected as the menu item. Go to *User interface* tab to start editing menu. In the *Menu* select the element from the list that should be added as menu item, for example, as shown on Figure 55.

Общие настройки	Шабоон названия с	TOGHNU		
Пользовательский интерфейс	Decession		-	
Список ГИС-серверов	Русскии	(0) COGIS		
Права для администраторов	Английский	(0) COGIS		
Личный кабинет, авторизация и регистрация	Меню сайта 🕀			
Управление учетными записями пользователей	Project_80		Отображать иконку в браузере	🗉 Отображать подменю 🗙
SMTP cepsep	недактирован	ие	Отображать только иконку	
Профилактические работы	Project_80 Atnac		Отображать иконку в браузере Отображать только иконку	Отображать подменю

Figure 55 – Setting web portal menu

If you select folder as the menu item, you can set its display method as drop down list of child elements. To do so, check the *Show submenu* option.

Menu items can be displayed as following:

- Name;
- Name with icon;
- Icon.

To download icon, press the button shown on Figure 55 above. After that, check the *Show icon in browser* or *Show icon only* options, respectively. The menu item name is set in *CoGIS Designer, General settings* tab.

Elements are displayed as per access rights set in the *Access permissions* tab and described in section *Условия доступа к элементу*. If after menu editing the selected element has not been displayed as the menu item, it means that your settings do not correlate with set access rights for elements. For example, if for the element English language has been selected and the default language is Russian, the element would not be displayed. Or, if you hide some element from user, the menu item made from this hidden element will also not be displayed.

3.6.5. Logo

Download logos, one of which will be displayed in the CoGIS menu, and the other on online map. Logo on online map is the button for going to *Map catalog* tab. Web portal logo is the button for going to URL address specified in the *Logo link* field. See Figure 56 to learn where settings are specified and how they are displayed.

Настройки Scogis Каталог карт Сообщения 0 Общие настройки Логотип в шапке сайта (высота 45рх) Пользовательский интерфейс cogis Список ГИС-серверов Права для администраторов Ссылка у логотипа https://cogis.dataeast.com/CoGIS/ Личный кабинет, авторизация и регистрация Логотип на странице карты (32х32 рх) Управление учетными записями пользователей 3 SMTP сервер Онлайн-карта Q Πĝ Тоиск улица Терешковой S 田

Figure 56 – Setting logo display

3.6.6. Page title in browser

Page title is set in the *Page title templates*. Enter the title in the field correspondent to selected interface language. For example, if you enter <{0} | Your title>, then instead of {0} the title of the current page *Settings* will be displayed, as shown on Figure 57.



Figure 57 – Page title

3.6.7. Additional information. Page footer.

In the lower part of the CoGIS pages and in Map catalog you can locate useful information such as copyright, terms of using website content, contact details, information about developer, etc. To add this information to the page footer, enter text or HTML code in the *Map catalog footer* section of the *User interface* tab, see Figure 58.

Настройки	
Общие настройки	your own interests.
Пользовательский интерфейс	
Список ГИС-серверов	Подвал для каталога карт
Права для администраторов	Русский
Личный кабинет, авторизация и регистрация	«сору дата ист https://cogis.dataeast.com
Управление учетными записями пользователей	
Каталог карт	

Консульства и посольства в Новосибирске





3.7. Preparing for users authorization and their accounts management

For users to be able to login on web portal and for you to be able to manage their accounts, the following is required to be done:

- Publish table with list of user accounts as map service.
- Establish connection with map service.

The table should contain the following attribute fields of specific type and length, see Table 1.

Table 1 – Tab	le with ι	user acco	unts
---------------	-----------	-----------	------

Attribute field name	Туре	Length
OBJECTID	OID	_
Login	String	255
Password Hash	String	255
PhoneNumber	String	8
Email	String	255
FullName	String	255
Description	String	255
ID	String	255
IsConfirmed	SmallInteger	
IsBlocked	SmallInteger	

After publishing table as map service, connection to this map service needs to be established. To do so, go to *User accounts management* tab. Check *Store user information in table* option. Enter map service address and specify layer number. Note, that the map service address part should coincide with GIS server address specified in *GIS servers list* tab, as shown on Figure 59, for example.

Общие настройки	🗸 Хранение инфо	омации о пользователях в таблице
Пользовательский интерфейс	С Хрансние инфо	
Список ГИС-серверов	Сервис	https://vm-cogis-test5/arcgis/rest/services/Users/MapServer
Права для администраторов	Слой	0
Личный кабинет, авторизация и регистрация	Chaptioning	
Управление учетными записями пользователей	Сравнение	по телефону 🔻
SMTP-сервер		
Общие настройки	×	
Пользовательский интерфейс	Публичный URL	
Список ГИС-серверов	http://vm-test5-test5/a	rcgis

Figure 59 – Managing user accounts

One user will be able to login differently if you set multiple authorization options as described in section **Ошибка! Источник ссылки не найден.** below. If you need that the page for managing user accounts provided login options for the user, in section *Comparison* select parameter that will be used for user's authentication, for example, by email.

3.8.Setting users login and authorization

3.8.1. Setting users login and authorization. General information.

Authorization and registration of new users are set on *Personal account, authorization and registration* tab.

3.8.2. Setting users registration

3.8.2.1. Setting users registration. General information.

To allow users to register on web portal, check *By login/password* and *Registration* options. Using list of macros shown in Table 2 below, you can create template for registration confirmation letter.

Macros	Value
{Login}	Login used to register
{FullName}	Full name specified by registration
{Email}	Email
{SiteLink}	Link to CoGIS
{SubmitRegistrationLink}	Email confirmation link

Table 2 – Macros

Figure 60 below shows example of template for registration confirmation letter.

Общие настройки	🗷 Регистрация
Пользовательский интерфейс	
Список ГИС-серверов	
Права для администраторов	Тема письма
Личный кабинет, авторизация и регистрация	регистрация {SiteLink}
Управление учетными записями пользователей	Текст письма
SMTP сервер	{FullName}, с вашего {Email} пришел запрос о регистрации
Профилактические работы	на (<u>SiteLink</u>). Для завершения регистрации подтвердите ваш e-mail, перейдя по ссылке (SubmitRegistrationLink).

Figure 60 – Example of template for registration confirmation letter

3.8.2.2. Sending automatic letters to users

For automatic sending of registration confirmation to specified user's email, set connection parameters for SMTP server. For setting of automatic letters to registered users, go to *SMTP server* tab, see Figure 61.

Общие настройки	SMTP сервер	
Пользовательский интерфейс	0	
Список ГИС-серверов	Сервер	
Права для администраторов	Порт	
Личный кабинет, авторизация и регистрация		
Управление учетными записями пользователей	SSL включен	
SMTР сервер	Авторизация	
Технические работы	От кого	
	Логин	
	Пароль	
	Пароль	
	🗆 Шифровать логин-пароль	при сохранении настроек

Figure 61 – Connecting to SMTP server

Enter server name, port, email, login and password. If you need that login and password used for sender's authentication would not explicitly be displayed on this tab and would not be saved, encrypt them checking *Encrypt password by saving settings* option.

Information about users registered on CoGIS is transferred to GIS server.

3.8.2.3. Additional information in the registration window

If you want that in the lower part of the registration window the additional information is shown, for example, Privacy policy, go to *User interface* tab, select the required field in the *Registration window footer* section and enter text or HTML code, as shown on Figure 62 for example.

Настройки

Общие настройки	Подвал для окна регистрации
Пользовательский интерфейс	🔲 Требовать подтверждения
Список ГИС-серверов	Русский
Права для администраторов	Регистрируясь на этом сайте и/или отправляя любые формы запросов, Вы
Личный кабинет, авторизация и регистрация	выражаете согласие на обработку Ваших персональных данных ООО «Дата Ист» в соответствии с применимым законодательством. Без оговорок и ограничений
Управление учетными записями пользователей	принимаете условия <a href="http://www.dataeast.ru/ru/privacy_policy.asp" style="color: #ff0000; border - bottom: 1px dashed; font - size:</td></tr><tr><th>SMTP сервер</th><th><u>10px">«Положения о
Технические работы	конфиденциальности» ООО «Дата Ист» и подтверждаете, что, давая такое согласие, действуете свободно, по своей воле и в своих интересах.
Окно «Регистрация»	

∠ Логин *	
Пароль *	Þ
Ф.И.О.	
🗹 E-mail *	
🛓 Описание (организация, должноо	сть)
Byon	Зарегистрироваться

Figure 62 – Additional information in the Registration window

3.8.2.4. Registration with confirmation

If you want to get confirmation from users registering in CoGIS, for example, their agreement with the privacy policy, go to *User interface* tab. In the *Registration window footer* section check *Require confirmation* option and enter the appropriate text or HTML code. In this case the user registering in CoGIS will need to first read the Privacy policy text and agree with its terms, after that the *Register* button will be enabled. The settings example and *Registration* window view are shown on Figure 63.

Настройки

Общие настройки	Подвал для окна регистрации
Пользовательский интерфейс	Требовать подтверждения
Список ГИС-серверов	Русский
Права для администраторов	Регистрируясь на этом сайте и/или отправляя любые формы запросов, Вы
Личный кабинет, авторизация и регистрация	выражаете согласие на обработку Ваших персональных данных ООО «Дата Ист» в соответствии с применимым законодательством, без оговорок и ограничений
Управление учетными записями пользователей	принимаете условия <a href="http://www.dataeast.ru/ru/privacy_policy.asp" style="color: #ff0000; border - bottom: 1px dashed; font - size:</td></tr><tr><th>SMTP сервер</th><th>10px">«Положения о
Технические работы	конфиденциальности» ООО «Дата Ист» и подтверждаете, что, давая такое согласие, действуете свободно, по своей воле и в своих интересах.
Окно «Регистрация»	

Q	Пользователь
٩	,
Q	φ. <i>Ν</i> .Ο.
\geq] adsas@mail.ru
4	Описание (организация, должность)
1	Регистрируясь на этом сайте и/или отправляя любые
	формы запросов, Вы выражаете согласие на обработку
	Ваших персональных данных ООО «Дата Ист» в
	соответствии с применимым законодательством, без
	оговорок и ограничений принимаете условия «Положения о
	конфиденциальности» ООО «Дата Ист» и подтверждаете,
	что, давая такое согласие, действуете свободно, по своей
	BORE N B CRONY NHTERECOV

Figure 63 – Registration with confirmation

Without sending agreement to process personal data the user will not be able to register in CoGIS, as the *Register* button will be disabled.

3.8.3. Setting users authorization

3.8.3.1. Setting users authorization. General information.

You can set authorization of users registered:

- on GIS server, to do so, check *By login/password* option.
- via social networks, to do so, select network in the list and enter requested parameters.

3.8.3.2. Setting users authorization via social networks

For setting users via social networks select social network from the provided list and enter the requested parameters.

• Facebook

Enter the application ID to *app_id* field. The app ID can be obtained at

<u>https://developers.facebook.com/</u>. Go to the website, login or authorize. Go to *My applications* and select *Add new application*. Fill in the form shown on Figure 64.



Figure 64 – Creating application ID

Press Create application ID, after that the app ID will be shown on the page, see example on Figure 65. This value should be entered to *app id* field.

facebook for d	evelopers	
CoGIS	-	ID ПРИЛОЖЕНИЯ: 404439243497498
ff Панель		200000000 000700000 + Dv000
	Figu	re 65 – Application ID

Figure 65 – Application ID

Instagram ٠

For setting authorization via Instagram, enter Client ID and Client Secret values to api key and *clientSecret*, respectively. To obtain these values, go to <u>https://www.instagram.com/developer.</u> Sing in or authorize. Go to Manage Clients and select Register a New Client. Fill in the form and after that you will get Client ID and Client Secret.

> Additional information. Authorization window footer. 3.8.3.3.

In the lower part of the authorization window you can locate any additional information. To do so, go to User interface tab, select the required field in the Authorization window footer and enter the text or HTML code, as shown on Figure 66, for example.

Настройки

Общие настройки	
Пользовательский интерфейс	
Список ГИС-серверов	Подвал для окна авторизации
Права для администраторов	Русский
Личный кабинет, авторизация и регистрация	© Дата Ист
Управление учетными записями пользователей	https://cogis.uataeast.com
SMTP сервер	
Технические работы	

Окно авторизации

Войти		×
Используйте один из аккаунтов		
Введите данные пользователя сайта	a	
🗕 Погин или телефон *		
💊 Пароль *	IS IS	
Регистрация	Войти	
© Дата Ист https://cogis.dataeast.com		

Figure 66 – Additional information in the authorization window

3.9. Personal account

The view of the *Personal account* window is shown on Figure 67.

🚨 administra	torK		
٩			Þ
Д Ф.И.О.			
🗹 administr	atorK@mail.ru		
🔳 Описание	е (организация, до	олжность)	

Figure 67 – Personal account window

In the lower part of the Personal account window you can locate any additional information, for example copyright sign. To do so, go to *User interface* tab, select the required field in the *Personal account window* footer and enter the text or HTML code, as shown on Figure 68, for example.

Настройки

Общие настройки

Пользовательский интерфейс

Список ГИС-серверов

Права для администраторов

Личный кабинет, авторизация и регистрация

Управление учетными записями пользователей

SMTP сервер

Технические работы

Окно «Личный кабинет»

Подвал для личного кабинета

Русский &сору Дата Ист

https://cogis.dataeast.com

Личный кабинет	×
🔔 administratorK	
٩,	G)S
Ф.И.О.	
🗹 administratorK@mail.ru	
🔳 Описание (организация, должносп	пь)
	Обновить данные
© Дата Ист https://cogis.dataeast.com	

Figure 68 – Additional information in the Personal account window

In order to set additional items of your personal account, go to *Settings/ User accounts management* and specify the required parameters. The sample of additional settings is shown on Figure 69 and Figure 70.

Пар	аметры 🕂		
	и Имя		
	Название	Имя	×
	Поле	FirstName	
	Тип	Текст 🔻	
	Описание		
			11
	Фамилия		
	Название	Фамилия	×
	Поле	LastName	
	Тип	Текст 🔻	
	Описание		
			11
	• Отчество		
	Название	Отчество	×
	Поле	MiddleName	
	Тип	Текст 🔻	
	Описание		
			11
Назі	вание группы		×
_			
Пар	аметры (+)		
	название	Email	X
	Поле	Email	
	Тип	Текст 💌	
	Описание		

Figure 69 – Setting additional parameters of personal account

Имя	
Фамилия	
Отчество	
Email	
Телефон	
	только по Новосибирской области
✓ Через пуш ✓ По email	ать об изменении статуса моих сообщении -уведомления (для мобильного приложения)
Информирова адресам ✓ Через пуш	ать об отключениях и программах ЖКХ по указанным -уведомления (для мобильного приложения)
🗸 По email	
Выбранные а,	дреса:
Весенний пр	роезд, 4
Укажите адре	са зданий (не более 10), по которым вы хотите получать

Figure 70 – Additional information

3.10. Maintenance works

уведомления.

During maintence works it is recommended to disable access to *Map catalog* content and other CoGIS elements for users. In the *Maintenance work* tab create the appropriate message about current maintenance works to be displayed when users will try to open *Map catalog* content and other CoGIS pages.

To explain reasons of maintenance works to other user, enter the maintenance works name in the field *Name* that will be shown on the current tab only.

Enter the maintenance works name and description, check *Active* option. After saving settings the message *This mode is active now* will appear. All web portal elements will be hidden for users. The Map catalog and other CoGIS pages will display only the message you have created, for example, as shown on Figure 71.

Настройки

Общие настройки	Серверное время 14:52		
Пользовательский интерфейс	Terrere conference ()		
Список ГИС-серверов	Технические работы		
Права для администраторов	: Название	Тест	×
Личный кабинет, авторизация и регистрация	Включено	Ланный режим сейчас активен!	
Управление учетными записями пользователей	C DIVIDICIO	Autor portal contac articlet	
SMTP cepsep	Дата начала	Не задана	
Технические работы	Дата окончания	Не задана	
	Название для пользователей		
	Проведение технических работ		
	Описание		
	Извините за неудобства		
Каталог карт			
•			
🚽 Проведение техни	ческих работ		
Извините за неудобства			



If you know the planned date or time of maintenance works start and end, you can enter this data in the appropriate fields as shown on Figure 72. Please note that here server time should be set. At set time in Map catalog and on elements Internet pages the message with maintenance works name and description will appear and be fixed there until the works completion.

Общие настройки	Серверное время 14:53	Пн	Вт	Ср	Чт	Πτ	C6	Bc
Пользовательский интерфейс	Технические работы 🕀	28	29	30	31	1	2	3
Список ГИС-серверов	: Название		6	0	7		~	10
Права для администраторов		4	С	0	1	ö	9	10
Личный кабинет, авторизация и регистрация	🗷 Включено	L 11	12	13	14	15	16	17
Управление учетными записями пользователей	Дата начала	18	19	20	21	22	23	24
SMTP сервер		25	26	27	28	1	2	3
Технические работы	Дата окончания	Врем	RN	0	00:00			
	Название для пользователей	Часы	ы		<u> </u>			
	Проведение технических работ	Мин	уты)—			—
	Описание			Сейч	ас	3	акрь	ΙТЬ
	Извините за неудобства							

Figure 72 – Setting maintenance works start and finish dates

3.11. Preparing for work with offline and online maps

3.11.1. Preparing for work with offline maps

For further work with offline maps you will need the folder of CMF2 files generation that is usually stored on the web server. To establish connection between the CMF2 files generation folder and CoGIS, go to *General settings* tab, select *Enable support for offline maps* option shown

on figure below, see Figure 73, and specify path to the folder in the *Root folder path* field. Make sure that the access to folder is allowed on the web server.

Общие настройки	🗷 Действия	/COGIS.Logs/FrontEnd/actions.tx	xt
Пользовательский интерфейс	🖉 Ошибки	/COGIS Logs/FrontEnd/errors tyt	•
Список ГИС-серверов			L
Права для администраторов	🗹 Отладка	/COGIS.Logs/FrontEnd/debug.txt	t
Личный кабинет, авторизация и регистрация	Активность	/COGIS.Logs/FrontEnd/activity.tx	d.
Управление учетными записями пользователей	Показывать ошибки		
SMTP сервер			
Технические работы	Файловые хранилища 🕀		
🗹 Включить поддержку офлайн-карт			
	Путь до корневой папки	I/Mobile.Offline.Maps	

Figure 73 – Enabling support for offline maps

3.11.2. Preparing for work with reports

For generation of report during work with online map you will need the folder with report templates that is stored on the web server. To establish connection between templates folder and CoGIS, go to *General settings* tab, select *Enable reports* option shown on figure below, see Figure 74, and specify path to the folder in the *Root folder path* field.

Общие настройки	🗹 Действия
Пользовательский интерфейс	Ошибки
Список ГИС-серверов	
Права для администраторов	Отладка
Личный кабинет, авторизация и регистрация	Активность
Управление учетными записями пользователей	Показывать ошибки
SMTP сервер	
Технические работы	Файловые хранилища 🕀
	Включить поддержку офлайн-карт
	Путь до корневой папки/Mobile.Offline.Maps
	Включить поддержку отчетов
	Путь до корневой папки/ReportTemplates

Figure 74 – Enabling support for reports

In order that later, when setting up reports or setting up data upload by templates, the administrator has access to this folder via web interface, you need to enable access to this folder, see *Giving web access to web server files*, section **Ошибка! Источник ссылки не найден**.

3.11.3. Referencing to coordinate system

For online map you can specify settings with which it will be available for viewing without basemap. To be able to define objects location, you need to reference your online map to coordinate system. Specify coordinate system in the *User interface* tab in the *Coordinate systems* section. Specify ID or text representation of the coordinate system.

3.11.4. Link to map

During work with online map the user can share its current status with other users. For this, the link is provided that can be either client or server one.

The client link is the link generated by default which contains the following information:

- Map extent used at the moment of the link generation;
- Object's identification dialog, identification card, attribute table, if they were open at the moment of the link generation;
- Layer in the attribute table selected at the moment of the link generation.

The server link requires additional settings and has number of benefits as compared with the client link:

- It contains more information about the map;
- It is shorter;
- It is automatically highlighted.

Link to map is generated on pressing \leq Link to map. By default the button \leq Link to map is shown in the lower left corner of the online map, if other location is not specified in the Buttons location on map tab. By pressing the button the Link to map dialog will appear containing the client link, the Add to Favorites button and the field for entering the link name. The example of the link to map is shown on Figure 75.



Figure 75 – Client link to map generated by default

Copy the link to share it with other users. You can also save this link to favorites by pressing the same-named button. In this case your link will be displayed in the *Favorites* window with the name you specified in the data input field. By default the link is named by the map name. The

Favorites window is opened by pressing without button. To learn how to add this button on your online map, see *Buttons location on map* section of the Creating map applications in CoGIS manual.

On Figure 75 above you can see that the client link looks quite bulky as it contains the list of parameters describing the current map state. In contrast to the client link, the server link looks much shorter, see Figure 76.

	Ваша онглайн-картя Войти	-J Pyc En
	Ссылка на карту 🗙	× (+)
R C	http://vm-cogis-test5/cogis-tinks/401b3da1-281a- 4357-bt3e-89d81ct3b4b9	
R R	Ваша онлайн-карта	AT
Выберите сло	Добавить в избранное	т
		ОН
	@ copyrights 1: 2 267	A

Figure 76 – Server link to map

If you want that by pressing \leq *Link to map* button the server link to your online map is generated, the following needs to be done:

- Create the table that will contain list of parameters describing the current map state;
- Publish this table as the map service;
- Establish connection to map service.

The table should contain the following attribute fields, see Table 3.

Attribute field name	Туре	Length
OBJECTID	OID	_
LinkID	String	255
MapName	String	255
UserName	String	255
LinkData	String	1073741822
created_user	String	255
created_date	Date	8
last_edited_user	String	255
last_edited_date	Date	8

Tahlo	<u>ع _</u>	Parameters	describing	current	man	state fo	r generation	of server	link to	man
Iable	5 –	raiameters	uescinning	current	iiiap	state 10	i generation	UI SEIVEI	IIIIK LU	map

Publish the table as map service. After that establish connection to this service on web portal. To do so, go to Administration menu and select Settings. In the appeared settings window in the *General settings* tab establish connection to the map service. Check *Использовать сервис для хранения ссылок из 'Поделиться ссылкой'* option and enter URL address of the map service to the *Service* field, specify layer number in the *Layer* field. Note that part of the map service address should coincide with the address of the GIS server specified in the *GIS servers list* tab, see Figure 77 for example.

Общие настройки	Использовать сервис для хранения ссылок из инструмента Поделиться ссылкой
Пользовательский интерфейс Список ГИС-серверов	Сервис http://vm-cogis-test5/arcgis- test/services/vaneev/MyLink/MapSr
Права для администраторов	Слои 1
Общие настройки	×
Пользовательский интерфейс	Публичный URL
Список ГИС-серверов	http://vm-cogis-test5/arcgis

Figure 77 – Connection of service for storing links to maps

In this case the generated link will contain not the parameters list itself, but the list ID, which results in the link shortening.

The server link, besides the current map extent, the object's identification dialog, the identification card, and the attribute table layer opened at the moment of the link generation, contains the following data:

- Selected basemap and specified transparency value, if the *Basemap* window was opened at the moment of the link generation;
- Visibility of layers in the *Legend* window, specified at the moment of the link generation;
- The Tab selected in the *Identification dialog* at the moment of the link generation;
- Attribute table with sorting specified at the moment of the link generation;
- Attribute and spatial filters selected for layers at the moment of the link generation;
- Gallery of images, timeline, if they were open at the moment of the link generation;
- The Tab selected in the *Identification card* at the moment of the link generation;
- Custom layers symbology;
- Objects created by user in the current extent;
- Result of measurement performed at the moment of the link generation;
- Search request and result.

To view parameters containing in the server link, go to the developer's console by pressing F12 and enter <api.getProject().state> command.

Sometimes it is needed to generate the link to map so that following this link the user could see the map with specific parameters. Link to map is created based on the following parameters, see Table 4.

Parameter	Parameters of map application	Example
URL	URL of the map application	https://cogis.dataeast.com/portal/NSK_Zoo_New
ld onlyZoom	ID of the object to which the map will be	id=0_10_1250269 id=!0_10_1250269 (instead of the object's identification card the object's callout will be shown)

Table 4 – Parameters for generating link to map

Parameter	Parameters of map application	Example
	zoomed, and which identificatio n card will be opened (order number of the service in the map, number of layer in service and OBJECTID of the object)	onlyZoom=true (the map will be zoomed to object, but the object's card will not be shown)
Scale	Zooming scale	scale=8000
layers	Consecutiv e numbers of layers of all services that need to be turned on in the legend	layers=0.5.8
centerX century coordSys	Coordinate s to that the map needs to be zoomed and the coordinate system	centerX=82.89287567138673¢erY=54.98519248891578&
tableServiceUr l tableLayerId tableHeight	Parameters of the attribute table (URL of the service,	http://cogis.dataeast.com/portal /NSK_Zoo_New#tableServiceUrl=http:///MapServer&tableLa yerId=1 &tableHeight=42

Parameter	Parameters	Example
	of map	
	application	
	number of	
	the layer,	
	height of	
	the	
	attribute	
	table)	
visibleWidgets	Names of	visibleWidgets=State
	widgets	
	that need	
	to be	
	opened (by	
	name of	
	widget	
	specified in	
	CoGIS	
	Designer)	
	Openlegin	http://cogic.dotocost.com/portal/NSK_Zoo_Now/Degin_true
login	form or	
	account	
	account	
auth	Open login	http://cogis.dataeast.com/portal /NSK_Zoo_New?auth=true
	form if user	
	is not	
	authorized	
register	Open	http://cogis.dataeast.com/portal/NSK_Zoo_New?register=true
_	registration	
	form if user	
	is not	
	authorized	
hideControls	Hide	http://cogis dataeast.com/portal
maccontrols	controls	/NSK Zoo New ?hideControls=true
disablePanZoo	Disable	http://cogis.dataeast.com/portal
m	changing	/NSK_Zoo_New ?disablePanZoom=true
	map extent	
	and scale	
disableIdentify	Disable	http://cogis.dataeast.com/portal
	objects	/NSK_Zoo_New ?disableIdentify=true
disableIdentify	and scale Disable objects	http://cogis.dataeast.com/portal /NSK_Zoo_New ?disableIdentify=true

Parameter	Parameters of map application	Example
	identificatio n	

4. Setting mobile service for work of CoGIS Mobile applications

4.1. Mobile service settings

Mobile service is provided for work of mobile clients - CoGIS Mobile. To go to server's settings, select *Mobile service settings* in the *Administration* menu.

Mobile service settings contain the following sections:

- General settings;
- Logging;
- GPS;
- Prompt;
- Notifications;
- Push-notifications.

4.2. Mobile service. Settings.

The view of the Settings window is shown below, see Figure 78.

URL сервиса	
Ссылка на CoGIS	
Путь до папки офлайн-карт	/COGIS.Mobile.Offline.Maps
Отображение серверных ошиб	іок в мобильном приложении
🗹 Исключения 🔍 Ла	ргические ошибки
Список IP разработчиков	
ГИС-сервер	
URL	
Привилегированный доступ	
Логин	
Пароль	
Авторизация	
🔲 По логину/паролю	🔲 Через ЕСИА

Figure 78 – Settings of mobile service

Specify link to geoportal CoGIS Portal with which the mobile client works, and path to folder with offline maps.

Specify which errors should be shown in mobile application, and list of developers' IPs, URL of GIS server, login and password for privileged access.

Specify options of authorization in mobile client.

4.3. Mobile service. Logging.

The view of the Logging window is shown below, see Figure 79.

	Путь до файла	Ограничени	4е (МБ)
🗹 Действия	/COGIS.Logs/MobileService/actions.log	5000	
🗹 Ошибки	/COGIS.Logs/MobileService/errors.log	100	
🗹 Отладка	/COGIS.Logs/MobileService/debug.log	10	
🗹 Запросы	. /COGIS.Logs/MobileService/requestlog xml	200	
Разрешить доступ только IP адресам			

Figure 79 – Logging settings of mobile service

For logging of work of mobile service specify paths to files and maximum size of logging files.

4.4. Mobile service. GPS.

For GPS monitoring, the following parameters need to be specified, see Figure 80:

- Whether you need to store data in offline mode;
- Maximum number of points saved in offline mode;
- Minimum deviation in meters;
- Maximum number of requests to server per hour;
- Group of users for GPS monitoring;
- Restriction by device IP.

Получатели GPS данных 🕀	
Накапливать данные в офлайне	
Максимальное число точек в офлайне	0
Минимальное отклонение в метрах	0
Количество запросов на сервер в час	120
Только для групп пользователей	
Только для IP устройств	

Figure 80 – GPS monitoring settings

Specify SOE link for map service, number of layer for recording results of GPS monitoring and action that needs to be done:

- Update point the last GPS location of mobile device will be recorded;
- Add point all locations of mobile device will be recorded;
- Add point to line the line based on GPS locations of mobile device will be created.

Specify the required fields of map service for recording information, see Figure 81:

- Field with session ID;
- Field with user name;
- Field with data transfer date;
- Field with client date;
- Field with device ID.

ArcGIS SOE 🕀		
Ссылка на сервис		
Номер слоя	0	
Действие	обновление точки 🔻	
Сравнение	по идентификатору устройства 🔹	
Проверка авторизации		
Поле с идентификатором сессии	SessionID	
Поле с именем юзера	UserName	
Поле с датой передачи данных	TransferredDate]
Поле с клиентской датой	ClientDate]
Поле с идентификатором устройства	DeviceID	

Figure 81 – SOE settings for GPS monitoring

In order to set up GPS monitoring via *GeoEvent*, specify service URL and SOAP template for GPS location data of mobile device, see Figure 82.

Geo Event 🕂		
Ссылка на сервис		
Шаблон	xml version="1.0"?	-
	<soapenv:envelope< td=""><td></td></soapenv:envelope<>	
	xmins:ws="http://schemas.xmisoap.org/soap/ws"	
	xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope">	-
	<soapenv:body></soapenv:body>	1

Figure 82 – Setting GeoEvent for GPS monitoring

4.5. Mobile service. Prompt.

If you need to set the address prompt by geocoding service, specify <mark>Шаблон запроса для</mark> <mark>геокодирования and Шаблон запроса для обратного геокодирования</mark>, see Figure 83.

Шаблон запроса для геокодирования	
Шаблон запроса для обратного геокодирования	

Figure 83 – Setting prompt by address

4.6. Mobile service. Notifications.

In order to enable inner notifications in mobile applications, check Включить, specify Временной интервал в секундах, after which the mobile application will search for available notifications. Specify map service, number of layer with notifications, and SQL filter. Specify map service and number of layer with notifications sending rules, see Figure 84.

Включить	
Временной интервал в секундах	120
Таблица уведомлений	
Ссылка на сервис	
Номер слоя	0
SQL фильтр	
Таблица правил	
Ссылка на сервис	
Номер слоя	0
SQL фильтр	

Figure 84 – Setting sending of inner notifications of mobile client

4.7. Mobile service. Push notifications.

In order to enable push notifications, check <mark>Включить</mark>, specify SOE for map service and number of layer for recording of push tokens, see Figure 85.

Включить	
Ссылка на сервис	
Номер слоя	6

Figure 85 – Settings for sending push notifications