Kyubit Business Intelligence - Installation and Administration User Manual



Kyubit Business Intelligence Installation and Administration

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1. Installation and configuration

1.1. Kyubit Business Intelligence installation Prerequisites

Kyubit Business Intelligence is standalone web application designed for **Self-Service BI** analysis/reporting, Microsoft **OLAP analysis/reporting**, **Dashboards**, **KPI** and **Scorecards** management, providing complete Business Intelligence environment. It relies on **Microsoft software infrastructure** and technologies which make prerequisites to install and work with Kyubit Business Intelligence software.

Server-side prerequisites:

- Windows 7, Windows 8, Windows 10, Windows Server 2003/2008/2012/2016
- .NET Framework 3.5 SP1
- IIS 6 or newer version
- **ASP.NET** 3.5
- MS SQL Server 2005/2008/2012/2014/2016 (for Kyubit Business Intelligence internal database) (Any Edition)
- MS Charts (available in Kyubit Business Intelligence installation)

Client-side prerequisites to use full features of Kyubit Business Intelligence is one of the following browsers:

- Internet Explorer 9 or newer
- Chrome
- Safari
- Firefox



Kyubit Business Intelligence components

1.2. Kyubit Subscription service installation

Kyubit Subscription service is Windows service application with features to **send subscription emails** at scheduled time with attached analysis and dashboards created with Kyubit Business Intelligence software, but also to run **scheduled Jobs** of recreating **Analytic Models** with most recent data from defined data sources. Subscription service is installed together with Kyubit Business Intelligence application. To configure 'Kyubit Subscription Service' use installed **Kyubit Subscriptions Panel** application.

Kyubit Subscription service server prerequisites:

- Windows 7, Windows 8, Windows 10, Windows Server 2003/2008/2012/2016
- .NET Framework 3.5 SP1

1.3. Planning deployment

Kyubit Business Intelligence is **web application** that is installed on the machine with web server (**IIS**). SQL Server instance for Kyubit Business Intelligence internal database and SQL Server Analysis Services instance could be installed on a single server or distributed to multiple servers. For example, Kyubit Business Intelligence could be installed on **Server A**, its database could be located on **Server B** and use OLAP data while analyzing from SSAS (SQL Server Analysis Services) on **Server C**.

Single Server Deployment

Ser	Server A					
•	IIS (Kyubit Business Intelligence) installation					
٠	SQL Server instance for Kyubit BI Internal database					
•	SQL Server Analysis Services (SSAS) instance (For Analysis)					

Distributed Environment Deployment

Server A					
•	IIS (Kyubit Business Intelligence) installation				

Server A

• SQL Server instance for Kyubit BI Internal database

Server A

• SQL Server Analysis Services (SSAS) instance (For Analysis)

Kyubit Business Intelligence communicates with its internal SQL server database using windows account defined within setup procedure. After Kyubit Business Intelligence setup, connection to SSAS (SQL Server Analysis Services) is **impersonated** with current user credentials using Kyubit Business Intelligence web application.

1.3.1. User credentials for Active Directory search

During setup procedure, user provides valid credentials for user that would be used for all search towards **Active Directory**, when searching for Users and Groups. Credentials of Windows account under which credentials are used for Active Directory searches could be changed afterwards by starting setup.exe and selecting "Change Active Directory User Credentials" on the upper right wheel button.



By default, Kyubit Business Intelligence works with **Active Directory** users or groups. Kyubit Business Intelligence could be configured to work with **local machine** users and groups to assign permissions to Kyubit BI objects. If Kyubit application will not be part of Active Directory, it is also possible to use local machine users and groups to set permissions for Kyubit application objects (Analyses, Dashboards, etc.)

To use local users and groups set following key in web.config file to your machine name:

<add key="ADMachineSearchContext" value="YOURMACHINENAME" />

1.4. Authentication options

Some important remarks on IIS web application authentication methods and topology of Kyubit Business Intelligence and SSAS (SQL Server Analysis Services) environment. It is related how user credentials are passed from browser to IIS web application (Kyubit BI) and then forwarded to SQL and OLAP database to return data.

1.4.1. Windows Integrated Authentication (Default)

Windows credentials of **current user** who opened the browser are **automatically used to identify user** in Kyubit application and same Windows account is used while accessing data sources. If Kyubit application and data sources are not on the same server, valid Kerberos authentication have to be configured. This authentication mode is already active after Kyubit setup.

- ✓ Easy usage with no login form
 ✓ Good security
- No logout button
- o Cannot be used with external users

How to configure

- 1. Open your IIS -> Sites -> KyubitAnalysis -> Authentication. Enable 'Windows Authentication' and 'ASP.NET Impersonation', while disable other authentication options.
- 2. Open your web.config file (C:\Program Files\Kyubit\BusinessIntelligence) and set LoginForm setting to "0".

<add key="LoginForm" value="0" />

1.4.2. Windows Login Form Authentication

User is prompted to enter his Windows credentials into login form, with option to be remembered by application (not having to supply credentials each time). It is recommended to use this authentication mode together with HTTPS protocol.

- ✓ At any-time log-out and log-in with appropriate credentials.
- ✓ Convenient for external user access.
- ✓ Kerberos not required.
- External users still require Windows account.

How to configure

- Open your IIS -> Sites -> KyubitAnalysis -> Authentication. Enable 'Anonymous Authentication', while disable other authentication options. Right click on 'Anonymous Authentication' -> Edit -> Set 'Application Pool Identity'
- 2. Open your web.config file (C:\Program Files\Kyubit\BusinessIntelligence) and set "LoginForm" setting to "1".

<add key="LoginForm" value="1" />

1.4.3. Kyubit Users Authentication

With this authentication scenario, **Users and Groups are created inside Kyubit application**, by Kyubit administrator. Kyubit User is prompted to enter his Kyubit credentials into login form, with option to be remembered by application (not having to supply credentials each time). It is ideal authentication option, if preferred to avoid Windows account creation for end-users, for any reason. If BI content is served over internet to outside users that are not part of the domain, this is recommended approach. Recommended to be used with HTTPS.

Because certain data sources require Windows account to connect to data (SSAS, for example). Each Kyubit User could have optionally associated Windows account to be used while accessing data sources. If Windows account is not associated, Windows account of Kyubit Application Pool in IIS will be used to access such data sources.

- ✓ Ideal approach for access by external users, avoiding Windows account creation for each external user.
- ✓ Easy to manage users and groups by Kyubit administrator.
- ✓ Optionally associate Windows account to apply OLAP role-based security.

How to configure

- 1. First, while you are still working with Windows authentication, create initial Kyubit user and assign him administrative privilege. Administration -> Users -> Create User. Click on the user -> Set Admin Rights.
- Open your IIS -> Sites -> KyubitAnalysis -> Authentication. Enable 'Anonymous Authentication', while disable other authentication options. Right click on 'Anonymous Authentication' -> Edit -> Set 'Application Pool Identity'
- 3. Open your web.config file (C:\Program Files\Kyubit\BusinessIntelligence) and set "LoginForm" setting to "2".

<add key="LoginForm" value="2" />

4. Login with created Kyubit user.

1.5. Troubleshooting after installation

Some environment settings and configuration could lead to certain problems with Kyubit Business Intelligence application usage.

1.5.1. Opening Kyubit Business Intelligence return '500.19 Error'

Resolution: ASP.NET is not installed as a part of IIS features.

(Windows 7) Go to Control Panel -> Programs -> Turn Windows Features -> Internet Information Services -> World Wide Web Services -> Application Development Features -> (Select) ASP.NET

(Windows Server 2008 R2) Go to Control Panel -> Programs -> Turn Windows Features -> Expand Roles -> (Right click) Add Role Services -> (Select ASP.NET)

1.5.2. Opening Kyubit Business Intelligence return '401.2 Unauthorized Error'

Resolution: Windows Authentication is not enabled as a part of IIS features.

(Windows 7) Go to Control Panel -> Programs -> Turn Windows Features -> Internet Information Services -> World Wide Web Services -> Security -> (Select) Windows Authentication

(Windows Server 2008 R2) Go to Control Panel -> Programs -> Turn Windows Features -> Expand Roles -> (Right click) Add Role Services -> (Select Windows Authentication)

1.5.3. Recommended IIS Settings

Check bellow **IIS features**/configuration in your environment in order to ensure that IIS serves all necessary content to Kyubit Business Intelligence application.

To check IIS settings on Window Server 2008, go to Administrative tools -> Server Manager -> Roles -> (Right click on) web server (IIS) -> Add Role Service and then check items in the list with our recommended settings.

1. Application Development Features

- .NET extensibility
- ASP.NET
- ISAPI Extensions
- ISAPI Filters

2. Common HTTP Features

- Default document
- Directory browsing
- HTTP Errors
- Static content

3. Security

- ASP.NET Impersonation
- Basic authentication
- Windows authentication

1.6. Configure user interface in other language

To implement user interface on your language, please follow these steps:

- 1) Go to your installation folder (C:\Program Files\Kyubit\BusinessIntelligence) and locate "Multilingual" folder
- 2) Within "Multilingual" folder locate folder with your language (for example "Spanish") and copy its contents (files and folder) to "CurrentLanguage" folder
- 3) Resest your IIS, or recycle "KyubitAnalysisPool" and your language should be ready to use.

Note:

- If you find some translation issues, let us know we will provide fix
- Error messages are not translated for convenience to faster locate eventual problems

1.7. Setup additional Kyubit application instance

At any time, you can create **additional** Kyubit application **instance** to serve content on **different** user interface language (multilingual options) or to use different authentication settings using same product license. For example, you can have two instances, one serves English user interface and other serving Spanish language, always working with the same data. Or you can have one instance working with "Windows Integrated authentication" and other using "Login form" or "Anonymous" authentication.

To set up additional instance:

- Duplicate existing folder "C:\Program Files\Kyubit\BusinessIntelligence", so you have for example "C:\Program Files\Kyubit\BusinessIntelligenceLogin"
- In IIS Manager create new site with physical path to "C:\Program Files\Kyubit\BusinessIntelligenceLogin" and uses same application pool "KyubitAnalysisPool"
- Set port to any available, for example 83
- Set appropriate authentication for new site (Section 1.4)

Open http://localhost:83/home to see if it works normally.

Now, we have two application instances that are looking at the same data, one is working with "LoginForm" other with "Windows Authentication". Same approach would be for multilingual purpose.

2. Kyubit Business Intelligence Structure & Administration

Before start to analyze data, it is good to be familiar with some basic concepts that help users to organize and manage related Kyubit Business Intelligence data.

2.1. Administrator role

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Users who belong to Administrator role have **maximum privileges** in Kyubit Business Intelligence application. Administrators can see and manage any object in Kyubit Business Intelligence. By default, **user who installs** Kyubit Business Intelligence is automatically becoming member of Administrator role. Only members of Administrator role have the right to do following actions:

- Activate/deactivate users
- Create new users and groups (if Kyubit Users Authentication is used)
- Assign/remove Administrator privileges to any user
- Manage licensing/Import license
- Assign Kyubit User or Group a Windows account that will be used while connecting to data source (if Kyubit Users Authentication is used)
- Create and manage tenants (If Multitenant mode is used)

2.1.1. Activate/deactivate users

Every user who connects to Kyubit Business Intelligence is automatically becoming Kyubit BI user. Administrator does not have to add any user explicitly. Additionally, administrator has privileges to activate/deactivate any user in Administration > Users & Admins section. Deactivated user will receive message that his/her account is deactivated, first time he/she tries to connect to Kyubit Business Intelligence.

2.1.2. Add/remove user to Administrator role

To add any user to Administrator role, go to Administration > Users & Admins section, mark user checkbox and click **Set Admin Rights** or **Remove Admin Rights** to remove user from Administrator role.

2.2. Kyubit Business Intelligence objects and User/Group permissions

To any of Kyubit Business Intelligence object types User/Groups permission could be assigned, so other users could see and utilize their functionality. Any object is visible only to his creator when created (and to administrators). To be visible to other users, appropriate permissions needs to be set.

Kyubit Business Intelligence objects are:

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Data Source – reference to SQL Database, OLAP database, Kyubit Analytic Model or ODBC data source.

Folder – grouping of many analyses with common permissions set and/or common business subject.

Analysis – created OLAP and 'Analytic Model' analysis/reports, including OLAP decomposition analysis.

Dashboards - dashboard charts and KPIs, based on created analyses and queries.

Queries – SQL and MDX queries that could be used as dashboard visualizations or KPIs.

KPIs and Scorecards - create success and fail rules to be displayed based on your SQL, OLAP and CSV data.

User Named sets – named sets defined in Kyubit Business Intelligence

User Drill-through columns – columns to return in drill-through action

User Calculated Measures – calculated measures defined in Kyubit Business Intelligence

To assign User/Groups permissions to any of these objects, open certain object (requires **Read/Write** permission) and select **Permissions** in the up-right corner. Existing permissions will be shown in the list. Find users and groups from Active Directory / Local Machine / Kyubit 'Users & Groups' and add them to the list. Mark users and groups and select **Remove** to remove them from object permissions.



To set that absolutely all users can see or edit given object, select Add users and mark "Everyone (Unrestricted access) and give "Read" or "Read/Write" permission.



2.3. Folders

To give other people permissions to see or edit created analysis or dashboard, created item has to be **shared** using previously created folder. Folder is object that groups all analyses and dashboards with same User/Group permissions. Folders could be used to share analysis with common subject or belong to certain business unit or process. Administrator or user with read/write permission on a folder could manage permissions for other user or groups.

To see actual data from OLAP/SQL data source, user needs permission on SSAS database/cube level, but to see that certain analysis exists in Kyubit Business Intelligence application, user needs permission also in Kyubit Business Intelligence folder with given analysis or dashboard.

To create new folder and define folder permissions, follow these steps:

- On Main menu select Create Folder link on the right side of screen.
- Set folder name and click Save
- To define permissions on folder, select "permissions" and choose required Active Directory users and groups, and finally select which access level should be given **Read Access** or **Read/Write Access** (See chapter 2.2. for details).

older			3	Permission
Folder name	Sales			1
			•	
To share analysis permissions. Wh select folder to s	with other users, create le analyzing data, select o hare.	folder an option to	d assign appr share analys	opriate is and
				-

2.4. My Analysis/My Dashboards

By default, all users have "My Analysis" folder. When saving analysis or dashboard, item is automatically saved in users "My Analysis/My Dashboards" folder, which is visible only to belonging user. "My Analysis/My Dashboards" folder cannot be deleted or renamed. To move certain analysis to other folder, analysis has to be moved to that particular folder. Once shared to folder, analysis is available to the group of users which have access permissions to view the content of the folder.

2.5. OLAP data sources

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To start analyzing data for certain OLAP database, SSAS OLAP cube has to be **referenced** in the Kyubit Business Intelligence application using **Data Sources**. Once it is referenced it can be **reused** in different analysis and reports, and used by any users of Kyubit Business Intelligence which has permissions for the same Cube reference. Cube reference just represents central catalogue of all available OLAP cubes to use in Kyubit BI. To define OLAP cube as new Data Source, MS SQL Analysis Services 2005/2008/2012 connection has to be configured and tested. While creating Cube reference user has to provide following data:

- Server name(address) with MS SQL Analysis Services
- OLAP Database name
- Cube name
- Cube reference (custom name)

Cube Reference 🔒 Permissions				
Cube reference name Server (Data Source) OLAP database (Catalog) Cube Name	AWorks Adventure Works DW 2008R2 SE Adventure Works Set custom connection string			
Enter data for Analysis Se	Save Close			
Enter data for Analysis Se use 'Cube reference' for	analysis, based on their permissions in OLAP cube.			

Cube reference could be defined by server/database elements or could defined as **custom connection string**, so advanced users could add some extra parameters. To assign permissions for other users on that same Data Source, select "Permissions" link and manage user/group permissions.

2.6. Licensing

Kyubit Business Intelligence is licensed per server. To obtain license, it is necessary to provide "System Name" in license purchase process.

After evaluation period ends, Kyubit Business Intelligence will not be available to perform any further analysis/functionalities. To activate Kyubit Business Intelligence and all of its functionalities, it has to be registered with valid license key file.

After license has been purchased, license file (*.lic) will be provided, which should be uploaded in Administration/Licensing section.

Licensing AnalysisPortal licensin	g information	
AnalysisPortal versi Kyubit AnalysisPort This software is not If you received lice	ion: 2.0.0.0 al is currently running in Evaluation Mode. t licensed. To obtain license, please visit ww nse file (*.lic) from Kyubit, please submit.	w.kyubit.com.
System Name:	Domain\MachineName	
License file:		Browse
	Register	
Visit www.kyubit.co	om for more details on licensing.	Close

3. Subscriptions

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Subscription features allows users to **schedule subscriptions** for Dashboards and OLAP analysis reports, but also to run **scheduled Jobs** to recreate Analytic Models with new data. Subscribed objects will be received via email messages on a scheduled time interval.

All users are able to subscribe to Analysis or Dashboard, if they have at least read permission for the object. Administrators could see and manage all subscriptions in the Kyubit Business Intelligence application.

"Kyubit Subscription Service" and "Subscription Panel" application is installed within "Kyubit Business Intelligence" setup procedure.

3.1. Subscription service configuration

After service is installed, it takes several details to be configured before service can be started.

3.1.1. Service Logon User

Defined user that would be used to run **Kyubit Business Intelligence** analyses and dashboards to prepare data for subscription email messages. Service Logon User needs permissions to access **Kyubit Business Intelligence** web application and data sources that are used to create analyses and queries for subscribed objects. Logon user also needs to be defined as **Administrator** in Kyubit application and administrator on local machine.

3.1.2. General settings

Defines Kyubit Business Intelligence URL and SMTP settings in local intranet to be used to send subscription emails.

URL for subscription service target to your Kyubit **ServicEndPoint** instance visible in IIS manager. This is Kyubit application instance that serves content for Subscription service.

URL to be included in email message target to your Kyubit default (User Access) instance.

🗞 Kyubit Subscription Service Panel – 🗆 🗙							×			
File										
Status	Logon user	General Settings	Test today	subscriptions	Troubleshooting	g tips				
Kyn Kyn SN En SN	ubit BIURL (fi ubit BIURL (li ITP Server: ITP Port: able SSL: ITP use defau	or subscription servi nk in email): ult credentials:	ce):	http://localhos http://localhos mail.kyubit.loc 25	st:82 st:81					
SMTP logon user: SMTP logon password:		kyubitsmtp								
		•••••]			
Su	bscription ema	ail FROM:		AnalysisPortal	@kyubit.com					
				SMTP settings email message	are required for s.	subscription serv	vice to deliver s	ubscripti	on	
									Close	:

When all details are configured, click on the start button to run Subscription service.

-	Kyubit Subscription Service Panel – 🗆 🗙
File	
Status Logon user Gen	eral Settings Explicit authentication Test today subscriptions
Service status:	Stopped
	To edit service settings, service has to be stopped, fill-in required settings and start service.
	To find details on subscription service execution open log files located in same folder as subscription service.
	Close

Subscription service status could be also managed from Windows Service Console.

🤹 Kyubit Subscription Service

Automatic Local System

3.4. Testing subscriptions

After some subscription have been created in Kyubit Business Intelligence application, to avoid waiting on scheduled subscription time in order to **test email subscriptions**, open tab "Test Today Subscription" in "Subscription Panel" application and set time for which you wish to test subscription emails.

For example, if you test for time 09:15, and there is some subscription scheduled for today and 09:15, subscription emails should be successfully sent.

Status l	Logon user	General Settings	Explicit authentication	Test today subscriptions	
Time:		08:00	Send subscripti	ons	

Enter time and click 'Test subscriptions' to send all subscriptions scheduled for today and defined time.

3.5. Monitoring Subscriptions log of activity

In the Subscription Service folder, **log files** will be created to track Subscription Service detailed actions and messages for troubleshooting purposes. For each day in week one log file will be created. Next week, old log files will be overwritten.

▹ Kyubit → SubscriptionService → Log	~
Name	Date modified
📄 Friday.log	9.5.2014. 11:09
Thursday.log	8.5.2014. 18:00
📔 Wednesday.log	7.5.2014. 17:00
Tuesday.log	6.5.2014. 16:00
Monday.log	5.5.2014. 17:20

Log files show exact times and what actions are performed in order to deliver subscribed emails.

4. Kyubit BI 'Configuration settings' (web.config)

It is possible to customize Kyubit Business Intelligence web application behavior related to various aspects of application usage. In order to change configurable details, open **web.config** file located in Kyubit Business Intelligence installation path (Typically, C:\Program Files\Kyubit\BusinessIntelligence) and change one of the configuration settings which exists in the following form:

<add key="[ConfigurationSetting]" value="[Value]"/>

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ExtraAdministrator	Administrators are managed in application sections 'Administration', but here is additional option to configure additional administrator by his login name, without entering application.
MaxAxisMembers	Maximum allowed members (Items) on each axis in the OLAP analysis grid. (Default value, 20000)
MaxReturnedCells	Maximum allowed number of cells returned by the OLAP analysis. (Default value, 50000)
MaxRowsDrillthrough	Maximum allowed number of rows returned by the OLAP drill- through. (Default value, 250000)
MaxMembersSearch	Maximum allowed number of members while searching for members. (Default value, 10000)
ActiveDirectorySearchUserName	Managed from setup.exe. Start setup.exe and in upper right corner select 'wheel' button to configure new value.
ActiveDirectorySearchUserPassword	Managed from setup.exe. Start setup.exe and in upper right corner select 'wheel' button to configure new value.
FolderAnalaysisSorting	Default sorting in Kyubit Business Intelligence folders could be applied to 4 columns (AnalysisID, Title, DataSourceName and CreatedBy). Any combination of four columns is allowed, separated with comma. Descending sort order is defined with keyword "Desc" after column name. For example "ORDER BY DataSourceName Desc, CreatedBy, Title"
ADMachineSearchContext	To configure Kyubit Business Intelligence to work with local machine users and groups, instead of Active Directory, set your local machine name in the setting.
LoginForm	Configuring authentication modes. Please read section 1.4 of Administration manual for more details.

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Hide Dashboard PDFFilters	To configure Kyubit BI not to display filters while exporting Dashboard to PDF file, set value to "1".
OnlyAdminCubes	To allow that only administrator can manage data sources, set value to "1".
OnlyAdminSubscriptions	To allow that only administrator can manage subscriptions, set value to "1".
OnlyAdminSharedItems	To allow that only administrator can manage OLAP Shared Items section, set value to "1".
OnlyAdminKPI	To allow that only administrator can manage KPI section, set value to "1".
OnlyAdminQueries	To allow that only administrator can manage Queries section, set value to "1".
OnlyAdminCreateFolder	To allow that only administrator can create new folders, set value to "1".
OnlyAdminCreateAnalysis	To allow that only administrator can create new analysis, set value to "1".
OnlyAdminCreateDashboard	To allow that only administrator can create new dashboard, set value to "1".
CSVDelimiter	Set delimiter character which will be applied when exporting analysis to CSV file. (Default value is ",")
EncryptDataSource	When creating a data source in Kyubit application, all data source connectivity details are encrypted for security reasons using following configuration. To disable encryptions set value to "0". (Default value is "1")
DefaultAnalysisAggregation	Default aggregate function in OLAP analysis, applied only if user did not select his preference in 'User Settings' form. Possible values : None=0, Sum=1, Min=2, Max=3, Count=4, Avg=5, [All]=6. (Default value is "1")
VerboseLogging	To set more detailed logging of application errors, related to export of dashboard to PDF.
Disable Dashboards	To disable dashboard 'Commenting' features completely, set value to "1".

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DisableAudit	To avoid application tracking of user actions in the application, set value to "1".
Disable Dashboards	To disable dashboard features completely, set value to "1".
DisableUserSettings	To disable user settings form, set value to "1".
OLAPFilterSelectionMethod	Default OLAP filter member selection method/Tab (0 = Browse, 1 = Search).
DefaultDataTranslationLanguage	If user did not select his default data translation langauge, this value will be used. This setting is applicable if OLAP cube is built with different data translation langauge options. (For example. None=0, French=1036, Russian=1049, etc.)
AutoWindowsUserActivation	Automatic Windows User activation. First time user connects to application, will be automatically added to application users. (Default value is "1"). If this setting is set to "0", each new users needs to me manually added to application in Administration -> Users & Admin form.
	Note, that even if user will automatically become application user, he will not get authorization to any created application object. Authorization to particular application object (Analysis, Dashboard, etc.) needs to be manually assign by the person with permissions Read/Write on particular object.
Multitenant	Set Kyubit application to work in Multitenant mode. Requires "LoginForm" setting to be "2" (Multitenand mode works only with 'Kyubit Users and Groups Authentication'). For more details read about 'Multitenant' section of the Administration user manual.
NonImpersonatedSubscriptions	By default, all subscriptions (to send analysis or dashboard on email) are executed in the context of the user who created subscription.
	Setting this value to "1" will disregard credentials of the subscription creators and subscriptions will be send in the context of the Windows account running Kyubit Subscription service.
MinimizedTablePDFExport	While exporting dashboard to 'Simple PDF', set this value to "1" to minimize 'Table charts' on the dashboard. Displaying only ten rows and two columns at most.
TopMargin, RightMargin, BottomMargin, LeftMargin	Sets margins defaults when exporting dashboard to PDF file. Default values are TopMargin=20, RightMargin=30, BottomMargin=20 and LeftMargin=40.

PDFFontSize	Sets default 'Font Size' defaults when exporting dashboard to PDF file.
ReopeningConnections	While analyzing in Grid/Chart view, OLAP connection is kept alive for performance reasons. To reset connection after each MDX query, set this value to "1".
PartialOLAPStructure	By default all OLAP cube structure is retrieved in Grid analysis. To retrieve OLAP cube structure partially, as individual measures/dimensions are selected, set this value to "1". Could have significant performance gains when using OLAP cubes with many measures and dimensions.

5. Notifications

Each user has an option to enable notifications on a certain folder within Kyubit Business Intelligence application. Once notification is set, user will receive email message whenever

- 1) New analysis or dashboard is added to same folder, or
- 2) Someone adds **collaboration comment** (see next section for 'Collaboration comments') on an analysis or dashboard within same folder.

User can set notification, if he has defined his email address in 'User settings' within Kyubit BI. Also, "Kyubit Subscription Service" has to be started for notifications to work.

Folder Shared An	nalyses							
Start New Ar	nalysis	Create New Folder	Delete Analysis	Move to folder	Clone	(9) 🖓 (Û	
Title 🗸 🕇								Analyze
🗆 🍖 Au	udit basic							
🗆 🍖 au	ıdit3939							10
🗆 🍖 Bik Sa cu:	ke sales o v ales is goin ustomers i	ver the years ng well in these countri n European countries.	es. This analysis exp	lains impact of our	new strate	egy with		10
🗆 🍖 Bu	ubble data	months						

6. Collaboration comments

Kyubit BI users can add their comments and **discuss BI content** within application. Comments can be added to analysis, dashboard or application level. If user has enabled 'Notification' on a parent folder, he will **receive email message** with related content and new comment.



All cumulative comments are visible on the application "Home" page.

📮 Collab	oration Comments	
Alice We 46 day(s) I have expected	ANALYSIS Bubble data months ren more income :)	
John Patt 46 day(s) have no permiss	rson DASHBOARD Q2 improved performance over Mountain bikes ns	
Micheal 46 day[s] some comment	DASHBOARD Q2 improved performance over Mountain bikes	
John Pati 46 day(s) Not sure if this is	rson ANALYSIS Bubble data months elated to new strategy, but looks real good.	

User can add his picture in 'User settings' to visually be presented in collaboration comments.

'Collaboration comments' could be disabled at application level by adding value "1" to web.config configuration.

<add key="DisableComments" value="1" />

7. Activity Log

All actions taken by any user are written to "Activity Log" that could be used by Kyubit Administrator for inspection. Use **Activity Log search** to find related actions within some date period or other object scope.

Activities history on Activity Log	the portai						¢ 1
Activity	-	Object Type	-				
llcar		Object ID					
0301	•						
Date Period							
	Search To Excel						
Activity		Object ID	Object Name	Object Type	User	Time	
Analysis - O	Ipened	2075	Bubble data months	Analysis	Micheal Robson	3.2.2016. 10:16:00	~
Dashboard	- Opened	6	Q2 improved performance over Mountain bikes	Dashboard	Micheal Robson	3.2.2016. 10:15:00	
User - Logir	1	2	Micheal Robson	User	Micheal Robson	3.2.2016. 9:50:00	
User - Logir	1	3	Alice Wein	User	Alice Wein	3.2.2016. 9:48:00	
Dashboard	- Opened	5	Geo Analysis, Sales and Trends	Dashboard	Micheal Robson	2.2.2016. 17:04:00	
Dashboard	- Opened	3	Sales Overview	Dashboard	Micheal Robson	2.2.2016. 17:02:00	
Dashboard	- Opened	70	Combo	Dashboard	Micheal Robson	2.2.2016. 16:50:00	
Dashboard	- Opened	69	audit 03022	Dashboard	Micheal Robson	2.2.2016. 16:50:00	
Dashboard	- Opened	67	audit 02020	Dashboard	Micheal Robson	2.2.2016. 16:50:00	
Dashboard	- Opened	74	Single	Dashboard	Micheal Robson	2.2.2016. 16:46:00	
Dashboard	- Changed	68	audit 29029	Dashboard	Micheal Robson	2.2.2016. 16:34:00	
Dashboard	- Opened	68	audit 29029	Dashboard	Micheal Robson	2.2.2016. 16:32:00	
Dashboard	- Opened	69	audit 03022	Dashboard	Micheal Robson	2.2.2016. 16:32:00	
Dashboard	- Opened	67	audit 02020	Dashboard	Micheal Robson	2.2.2016. 16:27:00	
User - Logir	1	2	Micheal Robson	User	Micheal Robson	2.2.2016. 16:27:00	
Dashboard	- Opened	76	New Dashboard	Dashboard	Alice Wein	2.2.2016. 16:13:00	
Dashboard	- Created	76	New Dashboard	Dashboard	Alice Wein	2.2.2016. 16:13:00	
Dashboard	- Opened	75	Sales	Dashboard	Alice Wein	2.2.2016. 15:57:00	
Dashboard	- Added to folder	3	Sales Overview	Dashboard	Micheal Robson	2.2.2016. 15:55:00	
Dashboard	- Added to folder	57	Recent changes visualized	Dashboard	Micheal Robson	2.2.2016. 15:55:00	
Dashboard	- Added to folder	66	Q3 Results	Dashboard	Micheal Robson	2.2.2016. 15:55:00	
Dashboard	- Added to folder	18	Test PDF (2)	Dashboard	Micheal Robson	2.2.2016. 15:54:00	
Dashboard	- Added to folder	17	Slicers (2)	Dashboard	Micheal Robson	2.2.2016. 15:54:00	
Dashboard	- Added to folder	25	Lists	Dashboard	Micheal Robson	2.2.2016. 15:54:00	×
Dashboard Dashboard Dashboard Dashboard Activities hi	- Added to folder - Added to folder - Added to folder - Added to folder - Added to folder story on the portal	66 18 17 25	Q3 Results Test PDF (2) Slicers (2) Lists	Dashboard Dashboard Dashboard Dashboard	Micheal Robson Micheal Robson Micheal Robson Micheal Robson	2.2.2016. 15:55:00 2.2.2016. 15:54:00 2.2.2016. 15:54:00 2.2.2016. 15:54:00	1

'Activity Log' could be disabled at application level by adding value "1" to web.config configuration.

<add key="DisableAudit" value="1" />

8. Multitenant Mode

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Kyubit BI can be configured to work in Multitenant mode, where each tenant content (typically company/organization/person) is completely separated from other tenant.

Default Single tenant mode is designed to be used within a single company/organization and users are divided between administrators and regular users. Administrators can access all the application created content, while regular users need to get content authorization by assigning permissions to particular content.

When using Multitenant mode, each company/organization has its own Administrators and regular users and administrator from one tenant cannot see or interact with any content from other company/organization (tenant).

In other words, Multitenant mode ensures total isolation of the content between companies/organizations (tenant) using the same Kyubit BI application instance.

While running in multi-tenant mode, Kyubit BI is still one instance of application and using one internal database, which structure is designed to meet multi-tenant functionality.

Multi-tenant mode is available only with Kyubit Users Authentication, while Windows authentication is not supported. However, each Kyubit user can or whole tenant could have assigned Windows account that will be used when connecting to data sources (OLAP/SQL).

To use multi-tenant in production, 'Multi-tenant Edition' license is required.



8.1 Configuring Multitenant Mode

Only administrator of root tenant (default tenant) is considered as master administrator and has privileges to manage application tenants.

How to configure

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- 1) First, configure Kyubit Users Authentication required for multi-tenant mode. After this step you will have a Kyubit user who is master administrator with privileges to manage tenants.
- Open your web.config file (C:\Program Files\Kyubit\BusinessIntelligence) and set "Multitenant" setting to "1".
- 3) <add key="Multitenant" value="1" />
- 4) After you login with master administrator within "Administration" section there will be options to manage tenants.
- 5) Create new tenants
- 6) Create new users (Administration -> Users & Admins -> Create User) and set each tenant appropriate administrators. From that moment created users can login to Kyubit BI and manage their own tenant users, groups or any data.
- 7) Each tenant can have associated Windows account to be used, while accessing data sources requiring Windows Authentication (SSAS, for example). Optionally, each user could have associated his own Windows account for the same purpose.

🖍 Tenant	
News	
Name	lenant Alpha
Description	
Inactive	
+ Optional. Associated W	findows account used to access data sources.
Tenant Admins	
🔲 💄 John Petterson	
Set Admin Rights Rem	ove Admin Rights Save Delete Close

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9. Geo Locations Management

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Geo locations are used to display data on dashboard charts related to particular place on earth. To manage all geo locations in Kyubit application, go to Administration -> Geo Locations section. Kyubit Administrator has rights to add, change or delete geo locations in the system. After Kyubit BI setup, automatically 7300 largest cities are loaded to Geo locations, while administrator can manage all entries at any time. In the Geo Location section administrator can search all geo locations by location name or country/group field, quickly visualize all geo location from same country/group, delete existing or add new geo location entries that will be immediately ready for usage in geo location visualizations and analysis.



1) Listing all geo locations in the system related to France, for example. List of all geo locations is displayed as list with names and geographical positions.

		Name		Country/Group		
H nome				FR	SEARCH	NEW ENA
🔛 Analyses	22		Name	Country/Group	Latitude	Longitude
Ø Dashboards	2		0	50	44 20041445	0.000005700
Data Sources	22		Agen Agen Aix-en-Provence	FR	44.20041445	5 449992634
♀ Queries			Ajaccio	FR	41.92706484	8.728293822
N KPI & Securecovida			Amiens	FR	49.90037661	2.300004027
~ KFI & Scorecards			Angers	FR	47.48000755	-0.530029949
{} OLAP Shared Items			Annecy	FR	45.89997479	6.116670287
🗊 Schedule			♦ Arras	FR	50.28332481	2.783333698
			O Auxerre	FR	47.80042727	3.566593382
Administration			Bastia	FR	42.70316734	9.450006875
LUSERS and Admins			Besancon	FR	47.22999697	6.03000891
Activity Log			Beziers	FR	43.35049217	3.209974323
C Tags			Ø Biarritz	FR	43.47327537	-1.561594891
Geo Locations			Bordeaux	FR	44.85001304	-0.595013063
🔆 Plan Your Environment			Bourges	FR	47.08372683	2.399997923
			O Brest	FR	48 39044293	-4 49500757

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2) Click on the 'Globe' icon to visualize listed geo locations on the geo map. At any time, change geo map country/region for more appropriate view of geo locations.



3) To add new geo location, click the map on the position of new geo location and new geo location dialog will be displayed to add name and save geo location.

•	• •	•	•	ŀ	
• • Geo Loc	ations				
Name Tag Latitude Longitude Disabled	Cannes X FR 43.560730739938 7.041771057623257	(-90° <> 90°) (-180° <> 180°)		l.	
	•	SAVE	CLOSE		CLOSE

9.1. Adding multiple Geo Locations

If there are many geo locations with known name and geographical position you wish to add more quickly, it is possible to directly add new rows in Kyubit internal database 'KyubitAnalysisDB', table 'GeoLocations', which is straightforward to comprehend and maintain.

10. Embedded BI with Kyubit

Embedded BI features are designed to integrate Analytics, Interactive Charts, Dashboards and KPIs with your Solution (HTML page). For more details on Embedded BI, please visit https://www.kyubit.com/Embedded-BI

10.1 HTML/Javascript Embedded BI

Embedded BI by including Kyubit Javascript/CSS files to your web site/application to integrate OLAP/SQL embedded analytics and data visualizations. Embedded BI Kyubit visualizations enables users of your solution to analyze OLAP/SQL/CSV data directly on your site, using Kyubit embedded analytic features like Drill-Down, Drill-through, 'Large View', Export to Excel, customize appearance, Caching and other.

Example

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```
<script type='text/javascript'>
$(document).ready(function ()
{
    $kyu.initVisualization('testDiv', {
        name: 'My Visualization',
        analysisId: 2053,
        chartType: 'Column_Chart',
        colorPallete: 0,
        allowLargeView: true,
        refreshTime: 5
    }
}
</script>
```

10.2 IFRAME HTML Embedded BI

Embedded BI approach to include whole OLAP/SQL Analysis Report or Dashboard to your site, use IFRAME HTML embedded analytics options. Created Analysis or Dashboard within Kyubit application is included to your site with single line of HTML and ready for your site user data discovery and usage with custom visual preferences to best fit to your existing user interface experience.

Example

```
<iframe id="dashFrame"
    src="http://localhost:85/Forms/Dashboard.aspx
    ?DashboardID=3027
    &@country=Canada;Australia
    &align=right&font=helvetica
    &fontColor=red&tileFontSize=11px
    &hideDesignButton=1&hideCloseButton=1
    &hideOpenPDFbutton=1&hideSubscribeButton=1"
    width="1600px"
    height="1000px"
    frameborder="0"
    scrolling="no">
<//iframe>
```