



cockpit
IT Service Manager

Standalone engine management - Windows

FAQ document

Table of contents

Introduction.....	3
I.Object.....	3
II.Architecture.....	3
Prerequisites.....	4
I.Software.....	4
II.External libraries.....	4
Installation.....	6
I.Engine creation.....	6
II.Engine installation.....	7
A.Service installation.....	7
B.Memory allocation.....	8
C.System configuration.....	9
III.Engine configuration.....	13
A.Functional settings.....	13
B.SMTP gateway.....	15
C.Local settings.....	15
IV.Start the service.....	15
V.Test.....	15
Administration.....	16
I.File location.....	16
II.Logs.....	16
III.Start/Stop.....	17
IV.Backups.....	17
V.Updates.....	17
A.Cloud mode.....	17
B.On premise mode.....	17
VI.Reset.....	18
VII.Monitoring.....	18
A.Status.....	18
B.Synchronization.....	20

Introduction

I. Object

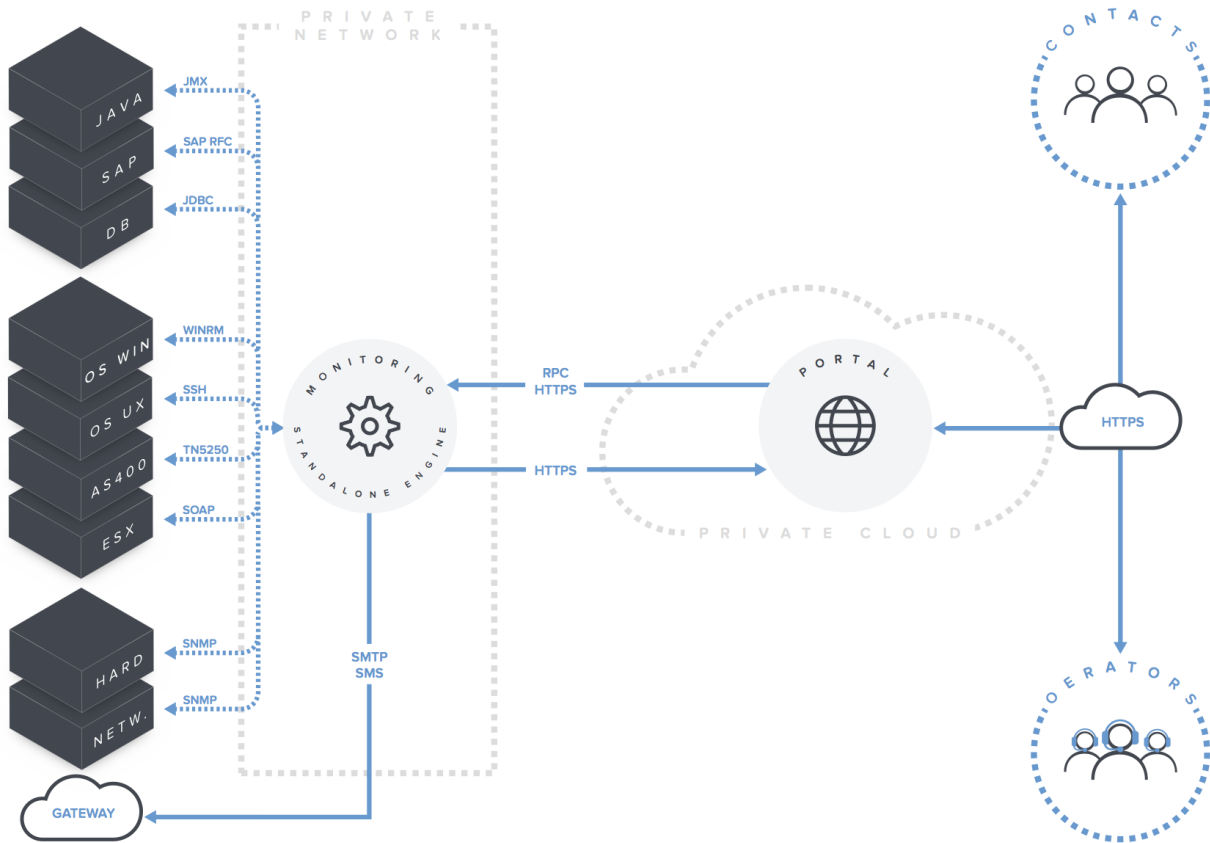
This document describes how to install a Cockpit IT Service Manager standalone engine on a host running the Windows operating system.

It describes how to administrate the engine.

It indicates the configuration files and logs and how to access them.

II. Architecture

A standalone engine uses API access to communicate with the portal.



Prerequisites

I. Software

Usage	Software and version	Download
Operating system	2008 server (64 bits) 2012 server (64 bits) Must be installed in english (US)	-
Cockpit IT Service Manager - Engine .NET package	Microsoft .NET Framework 4 (Web Installer) dotNetFx40_Full_setup.exe	http://www.microsoft.com/en-us/download/details.aspx?id=17851
Cockpit IT Service Manager - Engine WMI plugin	Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package ATL Security Update (64 bits) vcredist_x64.exe	http://www.microsoft.com/en-us/download/details.aspx?id=14431
	Microsoft Visual C++ 2005 SP1 Redistributable Package (x64) vcredist_x64.exe	http://www.microsoft.com/en-us/download/details.aspx?id=18471
Cockpit IT Service Manager - Engine WinRM client	Microsoft Visual C++ 2010 Redistributable Package (x64) vcredist_x64.exe	vcredist_2010_SP1_x64.exe
Cockpit IT Service Manager - Engine	koaly-exp-engine-standalone-XXX-setup.exe	https://download.cockpit-itsm.com/exp/stable/

II. External libraries

Certain libraries necessary for the operation of Cockpit IT Service Manager services depend on the specific environment the services are installed in. For example, JDBC drivers may be specific to the database version you are using; other libraries exist in different versions for each operating system.

Cockpit ITSM company does not distribute these external libraries, but you will need to provide them in a specific directory inside the installation directory (for engine: ext/lib).

The following libraries need to be downloaded from their respective web sites.

Connection	Library	Download
ERP – SAP - ABAP	SAP JAVA Connector 3 sapjco3.jar, sapjco3.dll	https://support.sap.com/swdc
ERP – SAP – JAVA	sap.com-tc-bl-pj_jmx-api.jar sap.com-tc-exception-impl.jar sap.com-tc-je-clientlib-impl.jar sap.com-tc-je-leanClient.jar sap.com-tc-logging-java-impl.jar	https://support.sap.com/swdc
Database - DB2	DB2 connector db2jcc.jar, db2jcc_license_cu.jar	http://www-01.ibm.com/support/docview.wss?uid=swg21363866
Database - MaxDB	MaxDB connector	http://service.sap.com/swdc

Connection	Library	Download
	sapdbc.jar	
Database - MSSQL	SQL Server connector jtds-X.jar	http://sourceforge.net/projects/jtds/files/
Database - MySQL	MySQL connector mysql-connector-java-5.X-bin.jar	http://dev.mysql.com/downloads/connector/j/5.0.html
Database - Oracle	Oracle JDBC connector ojdbcX.jar	http://www.oracle.com/technetwork/database/enterprise-edition/jdbc-112010-090769.html
Database - PostgreSQL	PostgreSQL connector postgresql-X.jdbc4	http://jdbc.postgresql.org/download.html
Database - SAP HANA	SAP HANA connector ngdbc.jar	http://service.sap.com/swdc
Database - Sybase	Sybase connector jtds-X.jar	http://sourceforge.net/projects/jtds/files/
	Sybase secured connector jTDSXd.jar, jconnXd.jar, cryptoj*.jar	http://service.sap.com/swdc

Installation

I. Engine creation

Connect to your Cockpit IT Service Manager - Portal.

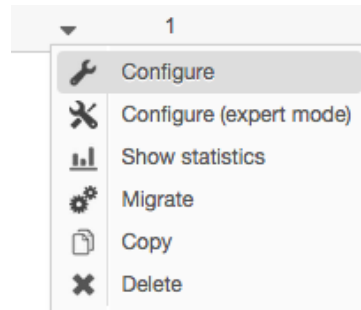
Use “Administration / Sub-systems / Engines” menu.

Add a new engine.

Save.

New engine	
ID:	1
Description:	Standalone 1

Edit the engine configuration.



Select the tab “Technical settings”.

Check option “Standalone”.

Choose a password for this engine or generate one using the “magic wand” button.

Remember ID and password for later.

Engine	
ID:	1
Description:	Standalone 1
Type:	<input checked="" type="checkbox"/> Standalone
Engine password (standalone mode):	lhEXGRYuW8whRK4P 

II. Engine installation

A. Service installation

Important: Please make sur the Microsoft .NET Framework 4 is installed prior to this installation.

Connect the target server.

Execute the setup program (administration rights necessary): koaly-exp-engine-standalone-vXXXX-setup.exe

Hit "Next"

Select "All users"

Modify the default installation directory (C:\koaly\exp\engine) if necessary.

Modify the default shortcut directory (Koaly\Koaly EXP Engine) if necessary.

Hit "Next"

Hit "Finish"

Option for very high level security system:
If you want to use a system-specific encryption key, use " Portal installation - System-specific encryption key" documentation.
1/ Generate the koaly.key file
2/ Copy the koaly.key file to "C:\koaly\exp\engine\conf"

If you plan to monitor databases, copy the JDBC driver corresponding to your database to the directory ext/lib.

If you plan to monitor SAP systems, copy the SAP JCo module to ext/lib.

Create the file "C:\koaly\exp\engine\conf\standalone.config" if it does not exist.

Add or adapt the following information:

```
# Engine ID - Unique identifier for each engine in the system
koaly.server.id=0

# Server password - Unique password for each engine in the system
koaly.server.password=password_configured_for_this_engine

# URL to the Cockpit IT Service Manager - Portal to synchronize with
koaly.portal.url=http://public_URL_of_your_portal/

# Certificate fingerpint
koaly.portal.cert.fingerprint=xxxxxxxxxxxxxx

# Proxy configuration
#
# Use these properties to configure a proxy server for auto-update and synchronization.
# Note that the proxy will only be used for connections to the portal and *not* by the monitoring module.
# Host and port are mandatory, username and password are optional.
```

```
#
# Uncomment the following 2 or 4 lines if you want to configure a proxy:
#koaly.proxy.host=replace with host name or IP of proxy server
#koaly.proxy.port=replace with proxy port
#koaly.proxy.username=replace with username
#koaly.proxy.password=replace with password
```

koaly.server.id: must be the same as the engine ID on the Cockpit IT Service Manager - Portal

koaly.server.password: must be the same as the engine password on the Cockpit IT Service Manager - Portal

Engine	
ID:	1
Description:	Standalone 1
Type:	<input checked="" type="checkbox"/> Standalone
Engine password (standalone mode):	lhEXGRYuW8whRK4P

koaly.portal.url: the URL must be reachable from the engine

koaly.portal.cert.fingerprint: If the engine refuses to validate the certificate provided by the server, add SHA-1 fingerprint of your portal certificate.

Note: If the certificate is OK, this parameter should be commented out by adding a hash sign (#) at the beginning of the line. The following steps can be skipped in this case.

Proxy configuration: Use these parameters when you have a proxy between the standalone engine and the portal.

Note: The connections via a proxy have been tested with the proxies Squid 3 and Privoxy.

B. Memory allocation

Open the file "C:\koaly\exp\engine\koaly-exp-engine-service.exe.config".

Update the value of the "<add key='additionalParameters' value='-Xmx1536m' />" parameter.

The following table contains the recommended memory allocation for a standard deployment of a standalone engine on a dedicated machine.

Physical RAM	Engine
1 Gb	768m
2 Gb	1536m
4 Gb	3072m

C. System configuration

1. Visual C++ Redistribution Packages

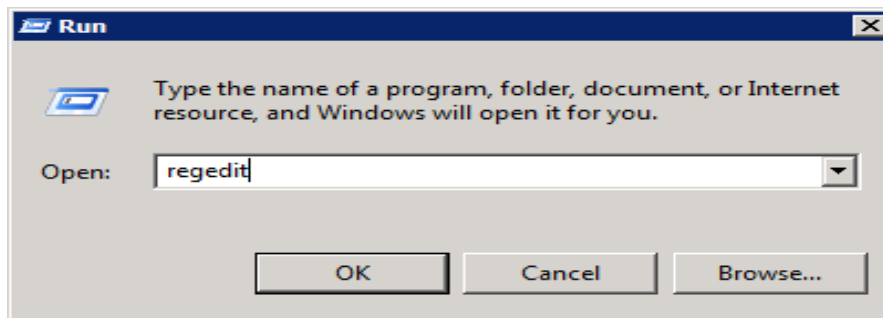
Execute the following programs and follow the instructions.

- vcredist_2005_SP1_ATL_x64.exe
- vcredist_2005_SP1_x64.exe
- vcredist_2010_SP1_x64.exe

2. Update IpDesktop memory limit

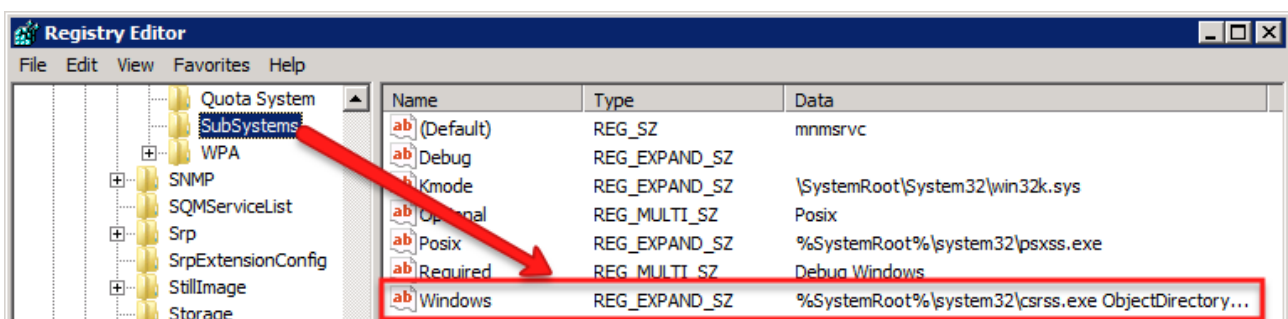
Edit the registry base. Use the following command.

Regedit



Edit next value.

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\SubSystems\Windows

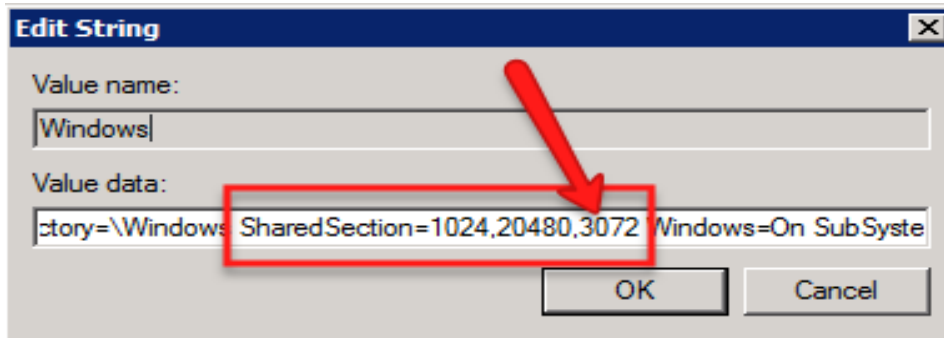


Replace the following value.

SharedSection=XXXX,XXXX,XXXX

With.

SharedSection=XXXX,XXXX,3072



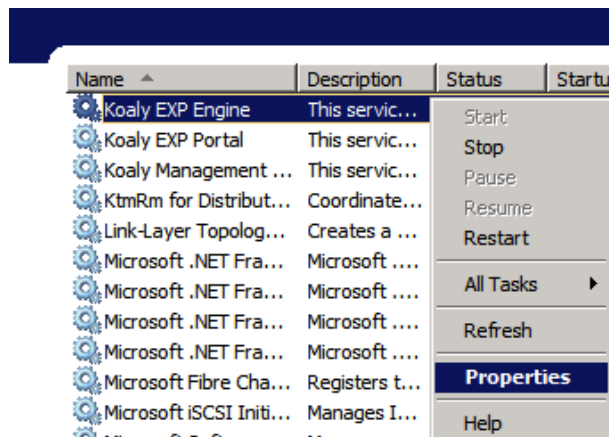
Save.

3. Options for WMI access

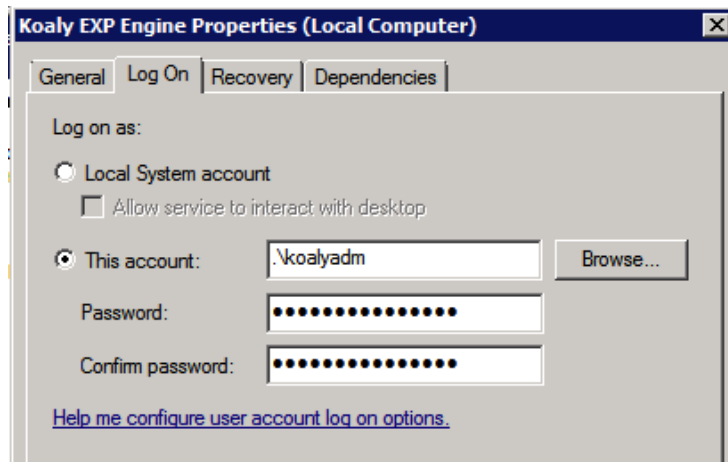
If you plan to use WMI access (to monitor Windows system earlier than Windows 2003 server R2), execute the following steps.

Change service's logon account:

Open the “Services” console and edit Koaly EXP Engine service properties.



Change the “Log On” account as WMI connections do not work with a “Local System account”. Choose another system account with administrator rights.

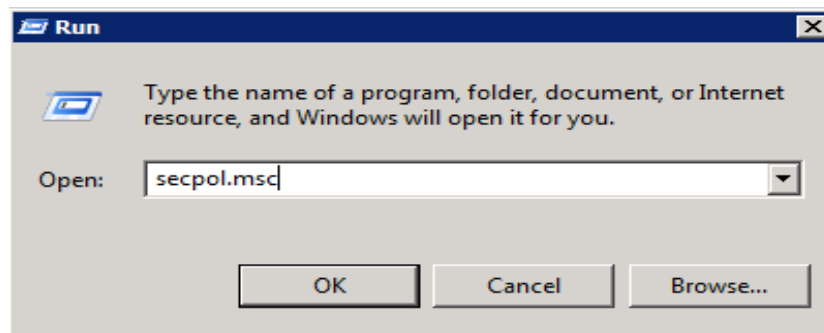


Update LAN Manager authentication level:

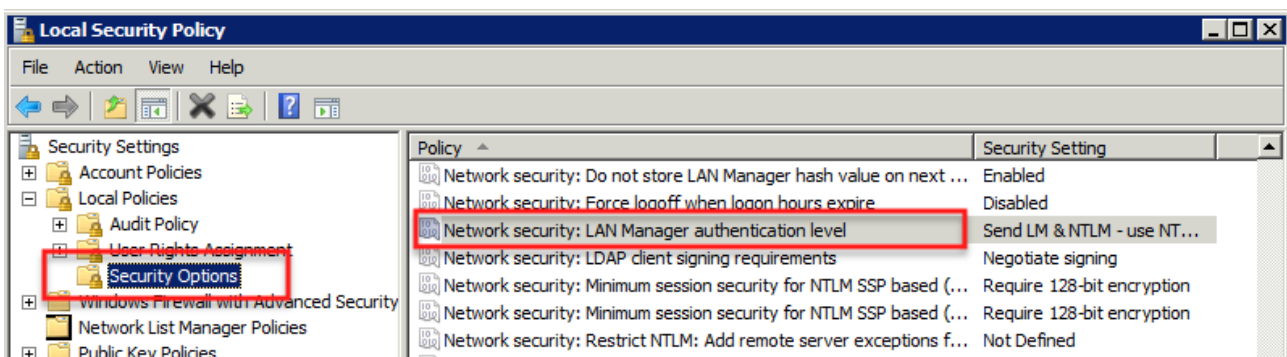
If your operating system version is “Windows 2008 server” (only), you have to change LAN Manager authentication level.

Open Local Security Policy console. Use the following command:

[secpol.msc](#)

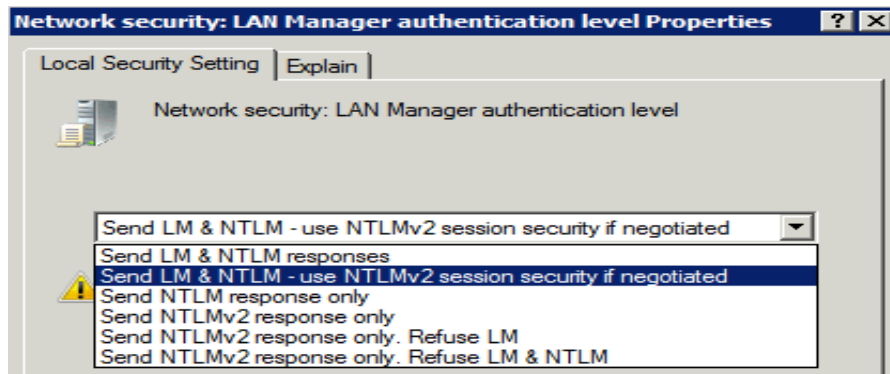


Select “Security Settings / Local Policies / Security Options”.



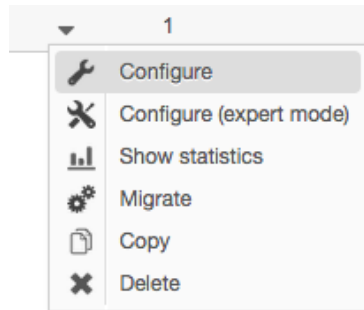
Edit “Network security: LAN Manager authentication level” policy.

Select “LM and NTLM - use NTLMv2 session security if negotiated” value. Save.



III. Engine configuration

Connect to your Cockpit IT Service Manager - Portal.
 Open the menu “Administration / Sub-systems / Engines”.
 Edit the engine configuration.



A. Functional settings

Select the tab “Functional settings”.
 Engine configuration is reloaded every day.
 You can select the time for this reload.

Engine	
ID:	1
Description:	Standalone 1
Configuration reload time:	<input type="text" value="12:15"/>

Activate the desired modules and options on “Monitoring and Infrastructure” part.

Monitoring and Infrastructure			
Module status:	<input checked="" type="checkbox"/>	Active	
Server Inventory:	<input checked="" type="checkbox"/>	Active	
Monitoring - DB:	<input checked="" type="checkbox"/>	Active	
Monitoring - Jobs:	<input checked="" type="checkbox"/>	Active	
Monitoring - Network:	<input checked="" type="checkbox"/>	Active	SNMP trap - Status: <input checked="" type="checkbox"/> Active
			SNMP trap - Port: <input type="text" value="16100"/>
			SNMP trap - Community: <input type="text" value="public"/>
Monitoring - SAP:	<input checked="" type="checkbox"/>	Active	
Monitoring - AS400:	<input checked="" type="checkbox"/>	Active	
Monitoring - ESX:	<input checked="" type="checkbox"/>	Active	
Monitoring - UNIX, Linux, BSD:	<input checked="" type="checkbox"/>	Active	
Monitoring - Web:	<input checked="" type="checkbox"/>	Active	
Monitoring - Windows:	<input checked="" type="checkbox"/>	Active	

Notes:

If you enable “Monitoring - Network - SNMP”, your engine will listen for SNMP traps on the specified port. You can send SNMP traps to the engine IP address and port.

If you check “Monitoring - DB” option, you have to copy the JDBC driver corresponding to your database to the directory ext/lib.


If you check “Monitoring - SAP” option, you have to copy the SAP JCo module to ext/lib.

If you check “Monitoring - Windows” option, you have to use WinRM protocol to connect to Windows systems. WMI connections are not possible from a Linux machine.

B. SMTP gateway

Standalone engine can use the global settings to send emails. These settings are set in the “Administration / Settings / SMTP gateway” menu. In this case, check the “Use global settings” option.

If you want to use another SMTP gateway (e.g. a local SMTP server), uncheck the “Use global settings” option and provide the necessary configuration data.

Connection settings:	<input type="checkbox"/> Use global settings		
Server:	<input type="text" value="smtp.gateway.net"/>		
Port:	<input type="text" value="465"/>		
Secure connection (TLS):	<input checked="" type="checkbox"/> Enabled		
Authentication:	<input checked="" type="checkbox"/> Enabled	User:	<input type="text" value="myuser"/>
		Password:	<input type="password" value="*****"/>
Electronic mailbox:	<input type="text" value="no_answer@itsm-cockpit.com"/>		
Description:	<input type="text" value="ITSM Cockpit - Support"/>		

C. Local settings

In the configuration of the engine standalone, the “Local settings” is visible only after the first synchronization.

The “Settings” field allows you to update the “standalone.conf” file from the Cockpit ITSM portal.

Update the field “Settings” and save:

- The consistency of the configuration is checked.
- The standalone engine updates its configuration from the portal and delete the old one, then service is restarted.
- During the restart the engine status is “Update in progress...”.

IV. Start the service

Connect to your server, open the “Services” console and start the service “Koaly EXP Engine”.

V. Test

Connect to the Cockpit IT Service Manager - Portal.

Select the engine list (Home / Dashboard).

The newly installed engine should be present in this list.

The status must be green after a couple of minutes.

	Description	Type	Status	Last signal
	Standalone 1	Standalone		10/09/2015 20:18

Administration

I. File location


Directory	Description
C:\koaly\exp\engine	Application files
C:\koaly\exp\engine\conf	Application configuration files
C:\koaly\exp\engine\logs	Application log files

II. Logs

You can request the engine log files from the portal.

Open the engine information panel from the engine list.

Engine Information	
ID:	1
Description:	Standalone 1
Type:	Standalone
Version:	2.4.5
Status	
Status:	Engine is OK
Last synchronization:	● 11/09/2015 12:34
Last signal:	● 11/09/2015 12:34
Load:	0,00
Active Checks:	0
Late checks:	0
Latest error log:	
Latest log file:	
Reset pending:	No
Log file requested:	No



Request log file.

It is also possible to access the log files directly on the standalone engine server.

Name	Description
engine.log	Messages
warn.log	Messages including "error" and "warning"
error.log	Messages including "error"

mail.log	Messages related to sent mail functionality (SMTP gateway)
sms.log	Messages related to sent SMS functionality (SMS gateway)

III. Start/Stop

Stop the engine.

Connect to your server, open the “Services” console and stop the service “Koaly EXP Engine”.

Start the engine.

Connect to your server, open the “Services” console and start the service “Koaly EXP Engine”.

IV. Backups

Standalone engine do not store data permanently (emporary storage only), it is not necessary to backup the engine server.

If you use a virtual machine, you can take a snapshot of your server after the installation.

V. Updates

A. Cloud mode

Standalone engines are automatically updated.

B. On premise mode

Follow the administration guide.

VI. Reset


In case of synchronization error, it is possible to request a reset of the engine.

The action will delete temporary data stored by the engine.

Open the engine information panel from the engine list.

Request a reset.

Engine Information	
ID:	1
Description:	Standalone 1
Type:	Standalone
Version:	2.4.5
Status	
Status:	Engine is OK
Last synchronization:	● 11/09/2015 13:09
Last signal:	● 11/09/2015 13:08
Load:	0,00
Active Checks:	0
Late checks:	0
Latest error log:	
Latest log file:	
Reset pending:	No
Log file requested:	No



VII. Monitoring

A. Status

Go to “Home / Dashboard” menu.



Check the engine status table.

You can open engine list to check the status of each engine.

	Description	Type	Status	Last signal
	Standalone 1	Standalone	●	10/09/2015 20:18

You can open the engine information panel.

The “Status” table gives more details about engine: status, load and synchronization.

Status	
Status:	Engine is OK
Last synchronization:	 11/09/2015 13:20
Last signal:	 11/09/2015 13:20
Load:	0,00
Active Checks:	0
Late checks:	0
Latest error log:	
Latest log file:	
Reset pending:	No
Log file requested:	No

If you want to check a standalone engine status automatically, the best way is to check the last signal with the following SQL request.


```
SELECT COUNT(engine_id) FROM gen_engines WHERE (UNIX_TIMESTAMP() - UNIX_TIMESTAMP(engine_alert_heartbeat)) > 7200;
```

This request will return 0 if all engines are available.

B. Synchronization

From the engine information panel, open the synchronization history.

Engine information	
ID:	1
Description:	Standalone 1
Type:	Standalone
Version:	2.4.5
Status	
Status:	Engine is OK
Last synchronization:	● 11/09/2015 13:09
Last signal:	● 11/09/2015 13:08
Load:	0,00
Active Checks:	0
Late checks:	0
Latest error log:	
Latest log file:	
Reset pending:	No
Log file requested:	No



A detailed list of synchronizations is displayed.

Timestamp	Engine -> Portal					Portal -> Engine				
	Alerts	Cap. pl.	Inv. (HW)	Inv. (SW)	Checks	Jobs	Hosts	Inv. Sched.	Other	
11/09/2015 13:12	0	0	0	0	0	0	0	0	0	
11/09/2015 13:11	0	0	0	0	0	0	0	0	0	
11/09/2015 13:10	0	30	0	0	0	0	0	0	0	
11/09/2015 13:09	0	0	0	0	0	0	0	0	0	
11/09/2015 13:08	0	0	0	0	0	0	0	0	0	
11/09/2015 13:07	0	0	0	0	0	0	0	0	0	
11/09/2015 13:06	0	0	0	0	0	0	0	0	0	

Document end