



SISTRA - INSTALLATION

Code: SISTRA-INST



**Govern
de les Illes Balears**



Unión Europea

**Fondo Europeo de
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RECORD OF CHANGES

Version	Pages	Reason for change
1	19	Document Creation
2	23	Installation process adjustment
3	23	Incremental DB changes and new global.properties parameters: personal area customization and ciphering users in DB
4	23	Problem with parser and CXF
5	23	Including Oracle libraries and @firma client Zonaperback link to organization registry application
6	23	New generic model in REDOSE: GE0011NOTIFICA REDOSE options for connecting with Open Office for document conversion to PDF. Webservices option of asynchronous processing in BANTEL Limit of days for shipments without expiration date in MOBTRATEL A procedure is indicated for version upgrade.
7	26	Unique ear and role flattening Changes of @firma client and signature libraries location Authentication webservices Login configuration: JAAS / CAS Problem client @firma 3.0.2 and login mock
8	26	Updating documentation with Sistra url change in global.properties
9	29	global.properties modification setting: - English texts for personal area - Email support
10	27	Updating @firma client to version 3.2.0
11	26	Option to sign representative delegations by public servant
12	26	Shipment verification functionality Location change of DB scripts and templates according to Anibal plan
13	28	Configuration properties are added: <ul style="list-style-type: none"> sistra.avisoObligatorioNotificaciones (global.properties) gestionExpedientes.avisosObligatorios and avisoPeriodico.maxDiasAviso (banel.properties) avisos.apartadoAlertas and avisos.smsAlertas (Zonaper.properties)
14	28	REDOSE: a functionality is added to store files on disk and purge processes are modified to unify them
15	29	Properties introduced in v2.1.0
16	30	Several payment plug-ins can be set (V2.2.2)
17	30	Properties for incidents processing in alert process
18	30	File path updates definition mail datasource and jms queue
19	30	New REDOSE property to limit purge
20	29	Shipment account breakdown in personal area: delegation and records
21	29	REDOSE : new property to indicate whether barcode is set to check the url
21	29	REDOSE : new property to indicate if CSV is used instead locator



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DISTRIBUTION OF DOCUMENT

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1. Introduction

This document describes how to install SISTRA and subsequent configuration steps for use of organization customized plug-ins.

Basic installation has mock plug-ins (plug-ins for installation testing) allowing to simulate behavior of plug-ins to be set up in the organization.

Installation process is described for Jboss 3.2.8 SP1 as application server and object creation scripts are provided for Oracle Database 10g.

SISTRA has been developed under J2EE standards so deployment descriptor files must be adjusted if a different application server will be used. Similarly Oracle database access was performed through Hibernate, so Hibernate configuration files must be adjusted if a different database provider will be used.

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2. Installation and upgrade process

Instructions of this manual should be followed sequentially for a new installation.

Next steps could be followed for a version update:

- apply existing database changes between versions (see section 4.1 of this document)
- verify and update changes at configuration file level pointed out in version document (SISTRA-VERSIONS)
- generate new version ears and replace them (see section 5.2 of this document)

3. Project configuration

3.1. Oracle Client

It's necessary to download Oracle client jar (ojdbc14.jar) version 10.2.0.1.0 or higher for project compilation. This jar must be copied to project lib directory.

3.2. @firma client

Sistra integrates @firma client version 3.2.0. File
[/integracion/clienteFirma/firma/aFirma/js/configClienteaFirmaSistra.js](#) includes @firma client
configuration parameters to be used inside Sistra.

File [configClienteaFirmaSistra.js](#) contains next parameters:

```
// Client Version: LITE,MEDIA o COMPLETA
sistra_ClienteaFirma_buildVersion="COMPLETA";

// Signature Algorithm
sistra_ClienteaFirma_SignatureAlgorithm = "sha1WithRSAEncryption";

// Mode signature: EXPLICIT or IMPLICIT
sistra_ClienteaFirma_SignatureMode = "EXPLICIT";

// Signature Format: CMS, XADES-BES ...
sistra_ClienteaFirma_SignatureFormat = "CMS";
```

File parameter values must be set depending on used signature format.

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4. DB settings

4.1. User creation

Following users must be created in the database:

- SISTRA
- REDOSE
- FORMS
- BANTEL
- ZONAPER
- MOBTRATEL

In the scripts directory database (/ scripts / datasets) are upgrade scripts.

Script files are organized according to rules set by Anibal plan.

4.2. Annual sequences

There are some sequences to be created each year:

- SISTRA user:
 - STR_SEQEyy: Sequence for shipment numbers (yy = year)
 - STR_SEQPy: Sequence for pre-registration numbers (yy = year)
- BANTEL user:
 - BTE_SEQEyy: Sequence for input numbers in Telematic Box (yy = year)

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5. JBoss configuration

5.1. JVM version

Required JVM version is 1.5. This platform has been tested in production using version 1.5.0_16.

5.2. Application deployment

Due to default application deployment model of JBoss where applications share the same classloader, it was established an application deployment order for each ear (setting a numeric prefix).

It's possible to "isolate" classloaders for each application but it's advisable to not proceed in this way if application server is dedicated completely to the platform due to interaction between different modules and performance issues (<http://wiki.jboss.org/wiki/Wiki.jsp?page=ClassLoadingConfiguration>).

The project has an ant task for ear generation located in root directory: build.xml.

Next ear will be generated in project directory (\product\ear) by aforementioned ant task execution:

1-sistra.ear

It is proposed to create an independent deployment directory in order to avoid mixture of Sistra and internal JBoss ears. It requires to modify \server\default\conf\jboss-service.xml file to establish that directory:

1) Locate the section:

```
<Attribute name = "URL">  
    deploy /  
</ Attribute>
```

2) Add a new directory:

```
<Attribute name = "URL">  
    deploy /, deploysistra /  
</ Attribute>
```

3) Create \server\default\deploysistra directory

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5.3. Boot parameter configuration

Graphics are generated in audit module through JFreeChart. Following modifications are necessary in JBoss boot script (linux environment) in order to be able of using this library:

- Declare next environment variables:
DISPLAY =: 0.0
export DISPLAY
- Set following property in JAVA_OPTS:
-Djava.awt.headless = True

Moreover, it's necessary to increase assigned memory to JBoss as JVM default memory configuration is not enough (64 Mb).

- Set in JAVA_OPTS options:
-Xoss128m -Xmx512m -XX: MaxPermSize = 128m

5.4. Message queue configuration for box warnings

In Box Module a JMS queue is required for performing warnings.

It's necessary to change server\default\deploy\jms\JBossMQ-destinations-service.xml file to include queue definition:

```
<Mbean code = "org.jboss.mq.server.jmx.Queue"
    name = "jboss.mq.destination: service = Queue, name = AvisadorBTE">
    <Optional-attribute-name depends = "DestinationManager"> jboss.mq:service=DestinationManager </ depends>

    <!-- 30 redelivery delay [s] -->
    <Attribute name = "RedeliveryDelay"> 30000 </ attribute>
    <!-- Unlimited redelivery -->
    <Attribute name = "RedeliveryLimit"> 3 </ attribute>
</ Mbean>
```

A queue definition example can be found in "scripts\config\JBossMQ-destinations-service.xml" file.

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5.5. Mail services creation for sending emails

Mobility module allows email shipment. It uses mail services defined in Jboss. The way to generate a mail service in Jboss is using a file located in deployment directory as it would be a datasource.

These mail services must be registered in mobility module for shipment account creation.

There is an example of a mail service for test account generated in mobility directory:
/scripts/config/mobtratel-mailTest-service.xml

5.6. Configuration directory

Platform configuration is set through properties files.

These configuration files must be contained in a directory called 'sistra'. Location of this directory is set using a system property: ad.path.properties.

This property can be established in JBoss adding next section in \server\default\conf\jboss-service.xml file where system properties are set:

```
<Mbean code = "org.jboss.varia.property.SystemPropertiesService"
  name = "jboss: type = Service, name = BootProperties">
  <Attribute name = "Properties">
    <!-- In / app / CAIB / sistra keychain configuration files -->
    ad.path.properties = / app / CAIB /
  </ Attribute>
</ Mbean>
```

If customized plug-ins need specific properties, it's advised that each plug-in has its own customized configuration file avoiding to use platform properties files as they can be modified in later versions.

5.7. XA transactions for Oracle

It's necessary to use distributed transactions to ensure transaction compliance between operations covering different modules (and therefore different database users). Next section should be uncommented in \server\default\conf\jboss-service.xml file to use distributed transactions in Oracle:

```
<Mbean code = "org.jboss.tm.XidFactory"
  name = "jboss: service = XidFactory">
  <Attribute name = "Pad"> true </ attribute>
</ Mbean>
```

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5.8. Datasource configuration

Datasources must be defined as XA and supporting distributed transactions:

```
<? Xml version = "1.0" encoding = "UTF-8"?>
<Datasources>
  <Xa-datasource>
    <Jndi-name> es.caib.sistra.db </ jndi-name>
    <Track-connection-by-tx />
    <IsSameRM-override-value> false </ isSameRM-override-value>
    <Xa-datasource-class> oracle.jdbc.xa.client.OracleXADataSource </ xa-datasource-class>
    <Xa-datasource-property name = "URL"> jdbc: oracle: thin: @ caibenred.indra.es: 1521: caibenre </ xa-datasource-property>
    <Xa-datasource-property name = "User"> sistra </ xa-datasource-property>
    <Xa-datasource-property name = "Password"> sistra </ xa-datasource-property>
    <exception-sorter-class-name>org.jboss.resource.adapter.jdbc.vendor.OracleExceptionSorter</exception-sorter-class-name>
    <No-tx-separate-pools />
    <Metadata>
      <Type-mapping> Oracle9i </ type-mapping>
    </ Metadata>
  </ Xa-datasource>
</ Datasources>
```

A datasource must be created for each user database. Expected jndi names for each datasource are:

- es.caib.audita.db
- es.caib.redose.db
- es.caib.zonaper.db
- es.caib.bantel.db
- es.caib.sistra.db
- es.caib.rolforms.db
- es.caib.mobtratel.db

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5.9. Authentication domain configuration

Platform uses J2EE standards for authentication (JAAS) so that EJB layer is protected by access roles (see platform used roles section).

Authentication domain name (security domain) is set as "seycon" for JBoss implementation. This security domain must be defined in `\server\default\conf\login-config.xml` file to set login module to be used according to specific organization authentication plug-in.

A test implementation of login module is provided to be able of testing the platform. It allows certificated access to perform processes and it verifies if more associated roles exist (process definition, etc.) for user/password access. Annex I explains how to set this test login module (this implementation is not appropriate for a production environment since certificate validation isn't performed)

NOTE: An implementation of authentication plug-in is provided for CAS integration (see authentication plug-in document).

5.10. Organization plug-in

Plug-ins to be used are pointed out in `global.properties` file in configuration file (see Modules Configuration in Global Configuration section).

To include libraries with organization plug-ins, they can be included in `default/lib` directory or an ear can be prepared including these libraries.

Basic installation has mock plug-ins (plug-ins for installation testing) allowing to simulate behavior of plug-ins to be set up in the organization. `Global.properties` file is initially configured to use these test plug-ins. Annex explains how to set these test plug-in.

5.11. Libraries to include

It's necessary to add next libraries in Jboss default `/lib` directory:

Oracle JDBC Driver version - 10.2.0.1.0	Oracle drivers
commons-codec-1.3.jar	Apache utilities for encoding/decoding

These libraries are available in project directory: `lib`.

5.12. Xerces parser update

Under Linux environments has detected that the JRE 1.5 behaves differently than under Windows environments causing webservices to fail randomly giving following exception:

`java.lang.NoSuchMethodError: org.w3c.dom.Document.getDocumentURI () Ljava / lang / String;`

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Solution of this error is to update JBoss 3.2.8 Xerces parser version 2.6.2 to version 2.7.1. To achieve it Xerces libraries located in *lib/endorsed* must be replaced for those provided in */doc/resources/xerces2.7.1*.

It should be reviewed that none of these libraries exist in default */lib* directory.

5.13. SAAJ library update

If ws-security authentication is used in webservices layer (see configuration 6.1) it will be required to update SAAJ library contained in JBoss 3.2.8 because it is too old.

To update this library:

- remove jboss-saaj.jar library in default */lib*
- add saaj-api.jar and saaj-impl.jar libraries to default */lib* (they can be obtained from project library directory).

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6. Module configuration

6.1. Global configuration

Module configuration is done via properties files located outside ears for avoiding environment ear dependency (development, pre-production or production).

These configuration files must be contained in a directory called 'sistra'. Directory location is set through (see Configuration Directory section in JBoss Configuration). Basic install provides properties file set configured to work with test plug-ins (doc/resources/config).

Moreover, it exists a file named global.properties with global properties for all modules where organization general information and customized plug-ins are set.

ORGANIZATION INFORMATION	
organismo.nombre	Organization name
organismo.sello	Organization name to set in registry stamp
organismo.logo	Organization logo url. It must be a web URL as this image will also be used, fi, in mail generation.
organismo.portal.url	Organization portal url. It will be default output when process is finished.
organismo.footer.contacto	Footer information for contact. Supports HTML.
organismo.soporteTecnico.url	Troubleshooting url. (fi, it could be a process of own platform). It allows @idioma@ and @asunto@ variables (they will be replaced by corresponding text). It should be established support by url or email (only one) and optionally to set up a support telephone.
organismo.soporteTecnico.email	Email for troubleshooting. It should be established support by url or email (only one) and optionally to set up a support telephone.
organismo.soporteTecnico.telefono	Telephone for troubleshooting (optional)
organismo.cssCustom	Url to css to customize appearance and maintain corporate identity. Two customized css examples exist in doc/resources/css
organismo.zonapersonal.titulo.xx	Title of personal area depending on language (fi Processing folder, My portal, etc.)
organismo.zonapersonal.referencia.xx	Reference to personal area in sentence context depending on language (if it takes an article: ie "your processing folder")
organismo.logo.login	Logo url for login.jsp of sistra and zonaper (at the beginning, for login mock)
organismo.cssLoginCustom	Css url for login.jsp of sistra and zonaper (at the beginning, for login mock)
PLUGINS AGENCY	
plugin.registro	Registry plug-in classname
plugin.envioSMS	SMS shipment plug-in classname
plugin.envioEmail	Email shipment plug-in classname (optional)
plugin.pagos	Payment plug-in classname (default plug-in)
plugin.pagos. << CODPLUGIN >>	It allows setting additional payment plug-ins. They will be identified by plug-in code suffix (fi plugin.pagos.TPV)
plugin.firma	Signature plug-in classname
plugin.login	Login plugin classname
plugin.autenticacionExplicita	Explicit authentication plug-in classname
plugin.custodia	Custody plug-in classname (optional, integration with custody won't be enabled if it

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	isn't set.
--	------------

AUTOMATED PROCESS USER	
auto.user	User created with specific roles in each module (AUTO) used for automatic processes as input warnings to backoffices, processing alert shipment, etc. This user must have following roles: ZPE_AUTO, BTE_AUTO, RTE_AUTO, RDS_AUTO and MOB_AUTO
auto.pass	User password
ENVIRONMENT PROPERTIES	
entorno	Environment: DEVELOPMENT / PRODUCTION. Certain features will be enabled depending on environment (fi, in DEVELOPMENT environment, platform generated pdfs will include a watermark indicating they aren't valid).
sistra.url	Public front url (internet) of Sistra (sistrafront, formfront, zonaperfront and redosefront). Real urlis necessary as it will be used to establish emails links, etc.
sistra.url.back	Internal back url of sistra (intranet)
clave.cifrado	Encryption key for users/passwords stored in DB (access to domains, etc.)
backoffice.url	Variable (@backoffice.url@) that can be used to set backoffice URLs (domains, processing, etc.)
sistra.iframe	It indicates if it is executed in an iframe (header and footer are not shown)
sistra.avisoObligatorioNotificaciones	It indicates if warnings are required for notifications (record warnings should be disabled)
AUTHENTICATION WEBSERVICES	
sistra.ws.authenticacion	Indicates whether basic authentication based on HTTP headers (BASIC) or ws-security usernameToken (UsernameToken) are used
sistra.ws.authenticacion.usernameToken.generateTimestamp	It points out if timestamp is generated for usernameToken authentication
sistra.ws.client.logCalls	It indicates if calls invoked by sistra are logged
sistra.ws.client.disableCnCheck	It indicates if server certificate invoked in https communication is not validated

For all other files, properties to be reviewed by organization will be marked in red.

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6.2. Sistra Module

6.2.1. Configuration file

This module has following properties in configuration file called *sistra.properties*:

front.resetearSesionInicio	It indicates if web session is reset at startup. It's necessary for forcing single sign on in CAIB login process.
habilitar.permisos	<p>It points out if access permissions must be applied over processes on sistaback. Permissions are set on sistraadmin. By default, false.</p> <p>Permission management allows setting if a user can modify a specific process. This feature is useful in a development environment when it is necessary to give permissions to specific groups on processes.</p>

It wouldn't be necessary to configure nothing by default in this file.

6.2.2. Generic domains

Next generic domains necessary for the platform are preloaded in basic installation:

ORGANIC STRUCTURE	
<i>Organic structure domains must be modified in order to reflect organic structure of organization</i>	
GESACUNADM	Administrative unit list
GESACARBUA	Administrative unit tree
GESACUADES	Administrative unit description. Code unit configured.
STRUCTURE RDS	
GERDSMODE	List of RDS document models
GERDSVERS	List of RDS document model versions. Model code configured.
STRUCTURE FORMS	
GEFORMMODE	Model form list
GEFORMVERS	Form version list. Form code configured.
GEFORMMOVE	Form and version tree
GEOGRAPHIC INFORMATION	
GEPAISES	List of countries (ISO 3166-1 alpha-3)
GEPROVINCI	List of Spanish provinces
GEGMUNICI	List of towns in a province. Province code configured.
GEMUNIDESC	Town description. Province and town code configured

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6.2.3. Form managers

SISTRA allows to work with different form managers. It's necessary to add corresponding managers in sistraback application.

For more information about customized form manager read SISTRA-GESTFORM document

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6.3. FORMS Module

6.3.1. Configuration file

Next properties exist in *forms.properties* configuration file:

tiempoEnCache	It indicates the time domains accessed by Sistra are cached in Forms. Default is 60 seconds.
dominio.sistra.plugin.url	If Forms module is installed on another server, it indicates url to sistra module for resolving domains. By default this property is commented because Forms is installed on the same server as platform.
habilitar.permisos	<p>It points out if access permissions against forms should be applied on formback. Permissions are set in formadmin. By default false.</p> <p>Permission management allows setting if a user can modify a specific form. This feature is useful in a development environment when it is necessary to give permissions to specific groups on forms.</p>

It wouldn't be necessary to configure nothing by default in this file.

6.4. REDOSE Module

6.4.1. Configuration file

Next properties exist in *redose.properties* configuration file:

verifier.text	Text associated with barcode verifier. Default: "Adreça per a la comprovació de la validesa del document".
scheduler.jobPurgadoDocumentos.schedule	Enable automatic document purging process.
scheduler.jobPurgadoDocumentos.cron.expression	<p>Cron expression to indicate when automatic document purging process is executed. Default: 5 a..m.: 0 0 5 * * ?</p> <p>Following actions are performed:</p> <ul style="list-style-type: none">- They are marked for deleting documents without uses- Marked documents to be deleted are removed if definitive delete period is reached- Old custody versions are removed- External files marked for deletion are removed (files on disk)
scheduler.jobPurgadoDocumentos.mesesAntesBorradoDefinitivo	It enables automatic definitive delete process of documents. Default: true
scheduler.jobPurgadoDocumentos.limite	It indicates maximum number of documents to purge in each process (limit is applied each time in each case: docs without uses, docs to delete definitively, custody docs and external docs)
scheduler.jobConsolidacionGestorDocumental.schedule	Enable automatic process of document manager consolidation. Default: true

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<code>scheduler.jobConsolidacionGestorDocumental.cron.expression</code>	Cron indicating when automatic process runs. Default: 0 0/10 * * * ?
<code>openoffice.host</code>	IP address where Open Office is installed (fi localhost) Configure by organization
<code>openoffice.port</code>	Port where Open Office is installed (fi 8100) Configure by organization
<code>plugin.filesystem.rootPath</code>	Root path for storage plug-in in file. Documents are stored in this path with next directory structure: <RootPath>/model/version/year/month/file Configure if disk location is enabled
<code>urlVerificacion.barcode.mostrar</code>	Indicates whether the barcode is set verification url (default true)
<code>urlVerificacion.csv</code>	Indicates whether a CSV is used instead of the locator on the verification URL (default false)

It should be necessary to configure next in this file:

- Access to Open Office for PDF conversions. These conversions are used by notifications/warnings generation for converting documents to PDF/A. Moreover conversions to PDF can also be used through REDOSE api.
- If storage location in file is enabled, it must be configured disk path where files will be stored.

6.4.2. Open Office installation

This module enables you to convert files to PDF/A through Open Office. Conversions to PDF/A are currently being used in Sistra in following points:

- in webservice api from RDS module there is a service that allows to convert a document to PDF/A when it's inserted in RDS (insertarDocumentoConTransformacion)
- in sistraback, an annex can be automatically converted to PDF/A.
- in the bantelfront, there is a module that allows manual notification generation. This module converts all attachments from documentation to PDF/A.

If any of these points will be used, it's required to install Open Office. Open Office used version is 3.1.

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6.4.3. Generic models

There are some preloaded document models in RDS that should exist:

GE0001JUSTIF	Proof of Registration. It uses display template that should be reviewed by organization for logo inclusion. This template is a properties file found at: <i>/scripts/plantilles</i> Installation process inserts empty template. After installation, reviewed template should to be inserted through <i>redoseback</i> .
GE0002ASIENTO	Registry note It uses the same display template than GE0001JUSTIF Installation process inserts empty template. After installation, reviewed template should to be inserted through <i>redoseback</i> .
GE0003DATPROP	Own data from process (annex of a registration note)
GE0004DOCID	Identity document
GE0005ANEXGEN	Generic annex
GE0006PAGO	Payment Details (In person and Telematics) It uses display template based on a PDF form. Each organization must create its template depending on its payment solution. It is provided as an example template used in Govern Balear: <i>/scripts/plantilles</i> . Installation process inserts empty template. After installation, reviewed template should to be inserted through <i>redoseback</i> .
GE0008AVINOT	Notification warning
GE0009OFIREM	Correcting notice
GE0011NOTIFICA	Model used for notification attachments in a generic way (it's used by notification generation manual module from box viewer)
GE0012DELEGA	Model used for signature authorization delegation
GE0013NOTIFEXT	External document notification model: used for external documents of annexes of notifications and warnings where an url to document is pointed out. An xml with access url will be stored in redose.

6.5. REGTEL Module

6.5.1. Configuration file

Next properties exist in *regtel.properties* configuration file:

firmar.entrada	It indicates if registration should sign the proof for an input registry. Default false.
firmar.salida	It indicates if registration should sign the proof for an output registry. Default false.
certificado.name	Id of registry digital certificate. To configure by organization
certificado.pin	Pin if certificate needs it To configure by organization

Certificate to be used by registry should be configured in this file. In a development environment, proof signature can be disabled or a test certificate can be used.

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6.6. BANTEL Module

6.6.1. Configuration file

Next properties exist in *bantel.properties* configuration file:

avisoPeriodico.intervaloSeguridad	Security interval (minutes) to avoid overlap of immediate warning with periodic warning. Default 2 minutes.
You avisoPeriodico.maxEntradas	Maximum input number per warning. Default: 100.
avisosGestores.cuentaEnvio	Mobility module account id for warning shipment to managers. To be configured by organization. Installation process sets a test account.
scheduler.jobs.number	Number of automatic processes (3)
scheduler.job.1.name	Name of automatic process 1: Warning to BackOffices
scheduler.job.1.classname	Handler class of automatic process 1: es.caib.bantel.admin.scheduler.jobs.AvisoBackOfficesJob
scheduler.job.1.cron.expression	Cron expression that determines periodicity of work. By default every minute: 0 * * * *
scheduler.job.1.schedule	It indicates if it's running. Default: true.
scheduler.job.2.name	Name of automatic process 2: Warning to managers
scheduler.job.2.classname	Handler class of automatic process 2: es.caib.bantel.admin.scheduler.jobs.AvisoGestoresJob
scheduler.job.2.cron.expression	Cron expression that determines work periodicity (it should be after rejecting notifs process in zonaper). Default: = 0 0 7 * * *
scheduler.job.2.schedule	It indicates if it's running. Default true.
scheduler.job.3.name	Name of automatic process 3: Planning of Monitoring to Managers Warning Job
scheduler.job.3.classname	Handler class of automatic process 3: es.caib.bantel.admin.scheduler.jobs.AvisoMonitorizacionJob
scheduler.job.3.cron.expression	Cron expression that determines work periodicity. By default each hour: = 0 0 * * *
scheduler.job.3.schedule	It indicates if it's running. Default true.
webService.cliente.asincrono	It indicates if call to asynchronously input processing WS is performed. Default true
gestionExpedientes.avisosObligatorios	It points out if record management module forces warning activation in records created through it
avisoPeriodico.maxDiasAviso	It indicates number of days after which an input will be marked as processed with error if failed to be processed. Comparison date is when it's ready to be processed (when it is being closed or when it passes to "not processed" status) If 0 it isn't taken in consideration and non processing inputs won't expire.

Mobility account for warning shipment to managers is the only thing to configure in this file. It means that this account was added through mobility module previously.

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6.7. ZONAPER Module

6.7.1. Configuration file

Next properties exist in *zonaper.properties* configuration file:

front.resetearSesionInicio	Indicates if web session is reset at startup. Necessary for forcing single sign on in CAIB login process.
avisos.cuentaEnvio.avisosExpediente	Mobility module account id for record warning shipment (alerts, communications and notifications). To be configured by organization. Installation process sets a test account.
avisos.cuentaEnvio.delegacion	Mobility module account id for warning shipment to delegations. To be configured by organization. Installation process sets a test account.
back.urlAplicacionRegistro	It allows linking zonaperback (pre-registration confirmation from registry point) with organization registry application (zonaperback initial link would point to this url). If not set, it redirects to zonaperback homepage
scheduler.backup.schedule	It indicates if automatic removing process for expired processes (persistence and pre-registration without confirmation) is activated. This process doesn't delete these processes definitively, but it stores them in a backup area. Default: true.
scheduler.backup.cron.expression	Expression to indicate when automatic process runs. By default at 4.a.m.: 0 0 4 * * ?
scheduler.backup.schedule.borradoPreregistro	It points out if removing procedure of expired processes deletes pre-registered processes that aren't confirmed after reaching delivery limit date. Default: false. ATTENTION: Pre-registry removing process is disabled because processing scheme for some processes makes possible to confirm in box out of presentation period.
scheduler.backup.borradoPreregistro.meses	If pre-registered expired processes removal is activated, it allows to point out expiration months to wait before deleting.
scheduler.borradoBackup.schedule	It indicates if removing process of backup area for expired processes is enabled. Default: true
scheduler.borradoBackup.cron.expression	Expression to indicate when automatic process runs. By default at 4.a.m.: 0 0 4 * * ?
scheduler.borradoBackup.meses	It points out months to be in backup area before being removed permanently.
scheduler.revisarRegistrosEfectuados.schedule	It indicates if record verification deleting process is enabled. This review mechanism allows that communication with registry isn't transactional. Default: true
scheduler.revisarRegistrosEfectuados.cron.expression	Expression to indicate when automatic process runs. Default: 0 0 * * * ?
delega.firmarDelegacionRepresentante	It indicates if representative delegations can be signed by public servant. Default: true
avisos.confirmacionEnvio.notificaciones.email	It indicates if shipment confirmation for notifications will be made (it requires to implement this

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	functionality in email plug-in)
avisos.confirmacionEnvio.notificaciones.sms	It indicates if shipment confirmation for notifications will be made (it requires to implement this functionality in sms plug-in)
avisos.confirmacionEnvio.eventosExpediente.email	It indicates if shipment confirmation for record events will be made (it requires to implement this functionality in email plug-in)
avisos.confirmacionEnvio.eventosExpediente.sms	It indicates if shipment confirmation for record events will be made (it requires to implement this functionality in sms plug-in)
notificaciones.controlEntrega.habilitar	Notification delivery control requiring acknowledgment signature (it requires specification of holidays)
notificaciones.calendarioDiasFestivos	<p>Holidays: it will look in indicated directory a file called <i>anyo.properties</i>, where <i>anyo</i> will be the year (fi 2012.properties)</p> <p>This file has next format: one line per month and holidays separated by commas for each month:</p> <p><i>mes.1 = 1,6</i></p> <p><i>mes.2 =</i></p> <p>...</p> <p><i>mes.12 = 6,8,24,25,31</i></p> <p>It isn't necessary to specify Sundays nor public holiday as they are detected automatically.</p> <p>IMPORTANT NOTE: Notification period is calculated at generating moment, so file of next year must be available on December.</p>
notificaciones.sellarAcuses.firmaClave.habilitar	It indicates if acknowledgments of receipt signed with password are digitally stamp in server with an application certificate signature
notificaciones.sellarAcuses.certificado.name	If <i>notificaciones.sellarAcuses.firmaClave.habilitar</i> property is activated, it points out certificate name
notificaciones.sellarAcuses.certificado.pin	If <i>notificaciones.sellarAcuses.firmaClave.habilitar</i> property is activated, it points out certificate pin
scheduler.entregaNotificaciones.schedule	It indicates if automatic process of notification delivery control is enabled (for notifications with acknowledgment)
scheduler.entregaNotificaciones.cron.expression	Expression to indicate when automatic process runs
avisos.apartadoAlertas	It points out if alert part in personal area is enabled
avisos.smsAlertas	It indicates if sms generation is allowed for record alerts (if disabled, sms only will be generated at record specific warning level)
scheduler.alertasTramitacion.schedule	It indicates if automatic procedure for processing alerts is activated. Processing alerts refers to detected incidents before definitive registration of request (it includes from pre-registration phase until it is confirmed).
scheduler.alertasTramitacion.cron.expression	Expression to indicate when automatic process runs
scheduler.alertasTramitacion.pagoFinalizado.avisoInicial	It indicates when it is alerted that there is a completed telematic payment and processing hasn't finished (hours)
scheduler.alertasTramitacion.pagoFinalizado.repeticion	It indicates how often a warning is repeated telling that there is a completed telematic payment and processing hasn't finished (hours)
scheduler.alertasTramitacion.preregistroPendiente.avisoInicial	It points out when it starts to alert that there is a pending preregistration to deliver once preregistered

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	(hours).
<code>scheduler.alertasTramitacion.preregistroPendiente.repeticion</code>	It indicates how often warning is repeated telling that there is a pending preregistration (hours)

Next points should only be set in this file:

- mobility account to use for warning shipment to citizens. Mobility account should be added in mobility module previously.
- if shipment confirmation is performed, elements for which shipment will be confirmed must be configured
- if notification delivery is controlled, specific parameters must be configured
- if alert part is activated, `avisos.apartadoAlertas` property must be configured and `avisos.smsAlertas` property too if SMS are allowed for these alerts.

6.8. AUDITA Module

6.8.1. Configuration file

Next properties exist in *audita.properties* configuration file:

<code>pathImages</code>	Path of generated images in statistics generation process. Default: / tmp
<code>scheduler.schedule</code>	It indicates if automatic statistics generation process is activated. Default: true.
<code>scheduler.cron.expression</code>	Expression to indicate when automatic process runs. By default at 1 a.m.: 0 0 1 * * ?

`PathImages` property should be reviewed in this file to set a valid path.

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6.9. MOBTRATEL Module

6.9.1. Configuration file

Next properties exist in *mobtratel.properties* configuration file:

envio.limiteTiempo	Time limit (min.) for shipping process length
sms.maxErroresSMS	Maximum error number in SMS shipments before canceling them (0 doesn't cancel). Useful to detect communication failures with SMS shipment provider. Default: 2
sms.maxCaracteres	Maximum number of characters in a SMS message. Default: 160
message.Index	Email paged shipment (spited in n pages according to number of recipients)
sms.maxDestinatarios	Maximum number of allowed recipients for SMS (0 means no limit). Default: 1000
email.maxDestinatarios	Maximum number of allowed recipients for email (0 means no limit). Default: 0.
sms.delay	Delay (secs) between a sms and next sms. Default: 0.
envio.simularEnvioEmail envio.simularEnvioSms	It indicates if email / sms shipments can be simulated. Useful for development / preproduction environments. Default: false.
envio.simularEnvio.duracion	When shipments are simulated, it indicates time length for a shipment (secs). Default: 10.
scheduler.job.1.name	Name of automatic process 1: Perform scheduled shipments
scheduler.job.1.classname	Handler class of automatic process 1: es.caib.mobtratel.admin.scheduler.jobs.EnviosJob
scheduler.job.1.cron.expression	Cron expression that determines work periodicity. By default every hour: 0 0 *** ?
scheduler.job.1.schedule	It indicates if it is running. Default true.
scheduler.job.2.name	Name of automated process 2: Perform immediate shipments
scheduler.job.2.classname	Handler class of automatic process 2: es.caib.mobtratel.admin.scheduler.jobs.EnviosInmediatosJob
scheduler.job.2.cron.expression	Cron expression that determines work periodicity. By default every minute: 0 *** ?
scheduler.job.2.schedule	It indicates if it is running. Default true.
scheduler.job.3.name	Name of automatic process 3: Perform verification shipments
scheduler.job.3.classname	Handler class of automatic process 3: es.caib.mobtratel.admin.scheduler.jobs.VerificarEnviosJob
scheduler.job.3.cron.expression	Cron expression that determines work periodicity. By default every hour: 0 0 *** ?
scheduler.job.3.schedule	It indicates if it is running. Default false.
envio.limite.sin.fecha.caducidad	It indicates limit of days of shipment attempt for shipments without expiration date (if not set, default: 15)
envio.verificarEnvio.limite	It indicates limit of days to attempt shipment verification (if not set, by default: 5)
envio.verificarEnvio.sufijoEmail	It indicates suffix for title of email message in order to be able of verifying later if it was sent. ? is replaced by message id.

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This file allows configuring if shipment verification process should be started.

6.9.2. Shipment accounts

At least it should be configured account used for record warning shipment in personal area and another one used by telematic box for warning managers (see configuration files of such modules).

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6.10. Platform roles

Roles used by platform are:

All	tothom	Role for citizen. Necessary for processing and accessing to personal area.
Manager processing	STR_GESTOR	Role for process managers. Necessary to access to Telematic Box front-end.
Administrator	STR_ADMIN	Role for platform administrator. Required to access to administration modules.
Automatic processes	STR_AUTO	Role for of automatic process users.
Registration point	RWE_USUARI	Role for input registry users. Required for pre-registration confirmations.
Auditor notebooks load	STR_AUDIT	System user role to audit specification programs.
Developer paperwork and forms	STR_OPER	Role for process and forms developer.
Operator Incident	STR_HELPDESK	User role for troubleshooting
Manager representations	STR_DELEGA	Role for user to assign representations according to power.

Role names can be changed in config.properties file located in project root before compiling the project:

```
role.gestor =STR_GESTOR
role.todos =tothom
role.admin =STR_ADMIN
role.auto =STR_AUTO
role.registro =RWE_USUARI
role.audit =STR_AUDIT
role.operador =STR_OPER
role.helpdesk =STR_HELPDESK
role.delegacion =STR_DELEGA
```

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7. ANNEX I: Installing test plug-ins

Basic installation provides mock plug-ins (testing plug-ins) to simulate behavior of plug-ins to implement by organization for testing the installation.

Next ant task must be executed to generate ear incorporating these plug-ins: \pluginsMOCK\build.xml

This task will generate next in \pluginsMOCK\product directory:

- 2-modul-pluginsMOCK.ear: contains plug-ins and test payment assistant. This ear must be deployed in deployment directory.
- loginModuleMOCK.jar: contains test login module to be installed in Jboss.

Next steps must be performed to install test login module:

- Create "loginMock" user database and import associated scripts (\doc\resources\bdd\scripts)

Installation with test login plug-in has following users:

USER	PASSWORD	DESCRIPTION	ROLES
admin	admin	User can define processes and configure platform	STR_ADMIN
manager	manager	User managing processes	STR_GESTOR
record	record	User of registry point to confirm pre-registrations	RWE_USUARI
helpdesk	helpdesk	Troubleshooting user	STR_HELPDESK
demo	demo	Demo user to perform processes with user/password level	tothom
auto	auto	User for automatic processes (input processing, etc.)	STR_AUTO
delegates	delegates	User for assigning representations according to power	STR_DELEGA

- LoginModuleMOCK.jar file must be placed in /server/default/lib. Moreover, bouncy castle libraries (bcmail.jar, bcprov.jar y bctsp.jar) for certificate handling go to the same directory. These libraries can be found in project directory: \pluginsMOCK\lib

bcmail.jar, bcprov.jar and bctsp.jar	Bouncy Castle libraries for digital signature. Required if test login module and test signature plug-in are used.
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- Add login module in Jboss file: /server/default/conf/login-config.xml

```
<Application-policy name = "seycon">
  <Authentication>
    <Login-module code = "es.caib.mock.loginModule.MockCertificateLoginModule"
      flag = "sufficient">
      <Module-option name = "roleTothom"> tothom </ module-option>
    </ Login-module>
    <Login-module code = "es.caib.mock.loginModule.MockDatabaseLoginModule"
      flag = "sufficient">
      <Module-option name = "unauthenticatedIdentity"> nobody </ module-option>
      <Module-option name = "dsJndiName"> java: /es.caib.mock.loginModule.db </ module-option>
      <Module-option name = "principalsQuery"> SELECT USU_PASS, USU_NOM, USU_NIF FROM
WHERE SC_WL_USUARI USU_CODI =? </ Module-option>
      <Module-option name = "rolesQuery"> SELECT UGR_CODGRU, 'Roles' FROM WHERE
SC_WL_USUGRU UGR_CODUSU =? </ Module-option>
    </ Login-module>
  </ Authentication>
</ Application-policy>
```

This login module allows accessing as citizen role (tothom) to users authenticated with digital certificate. It also allows to define users for application maintenance in database.

- Modify Tomcat to enable single sign on between applications. It requires to uncomment the valve implemented in file: \default\deploy\jbossweb-tomcat50.sar\server.xml

```
<!-- Uncomment to enable single sign-on across web apps
      deployed to this host. Does not Provide SSO across a cluster.

      If this valve is used, do not use the JBoss SingleSignOn valve
      shown below.
-->
<Valve className = "org.apache.catalina.authenticator.SingleSignOn"
      debug = "0" />
```