

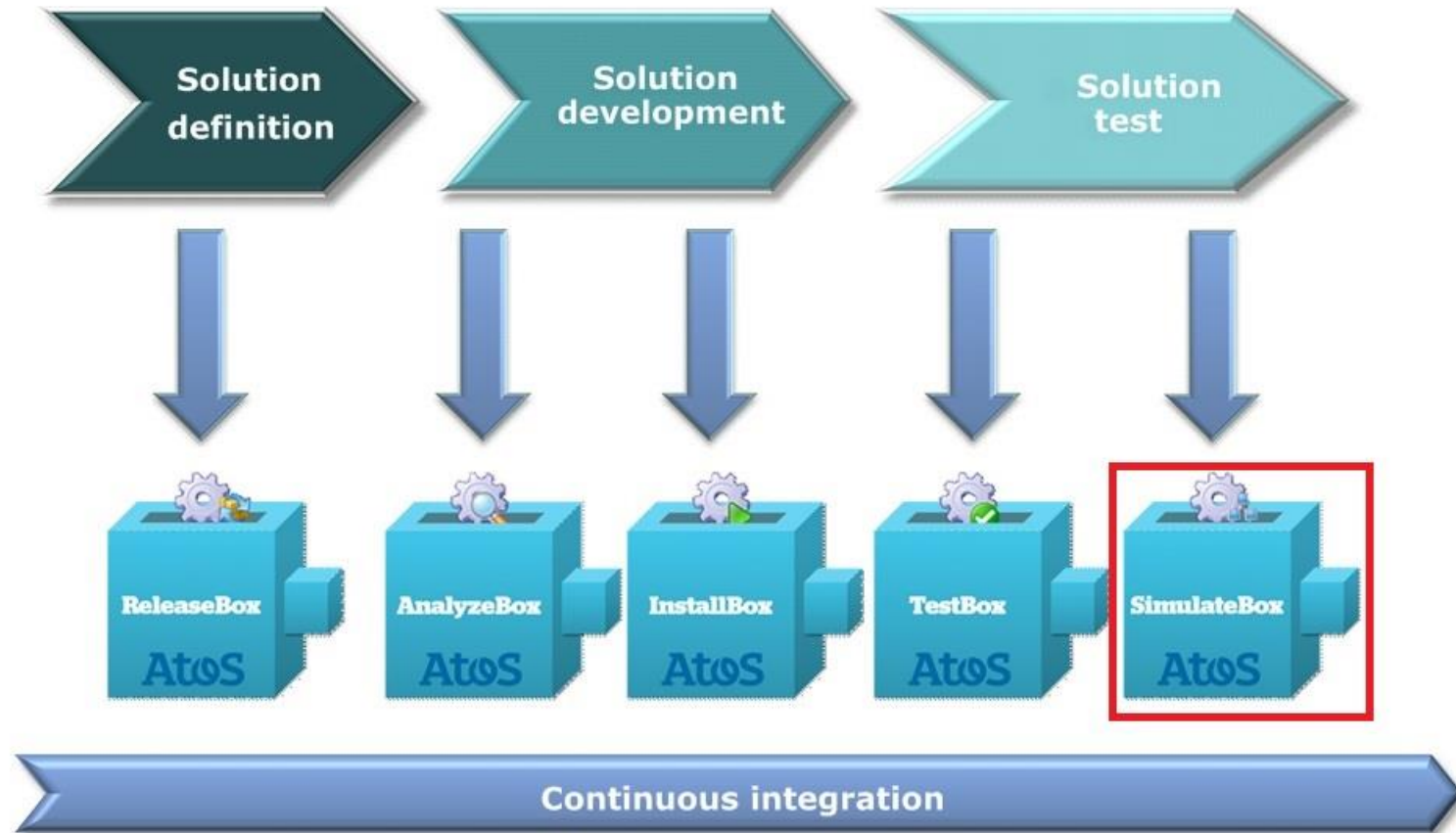


Application simulation with SimulateBox

June 2016

An industrial offer

Complete cover of a project lifecycle



SimulateBox: Applications simulation tool

Presentation



- A solution that enable to simulate the partner applications and thus be independent during testing phases
- Does not require advanced technical skills (completely based on the XML language configuration)
- Written in Java, multi-platforms (Windows, Linux, AIX, Solaris, etc.)
- Enables the automatic generation of data sets from an Excel file using the add-on Generator
- Based on the definition of a simulation key from the input data
- An Atos product, under license

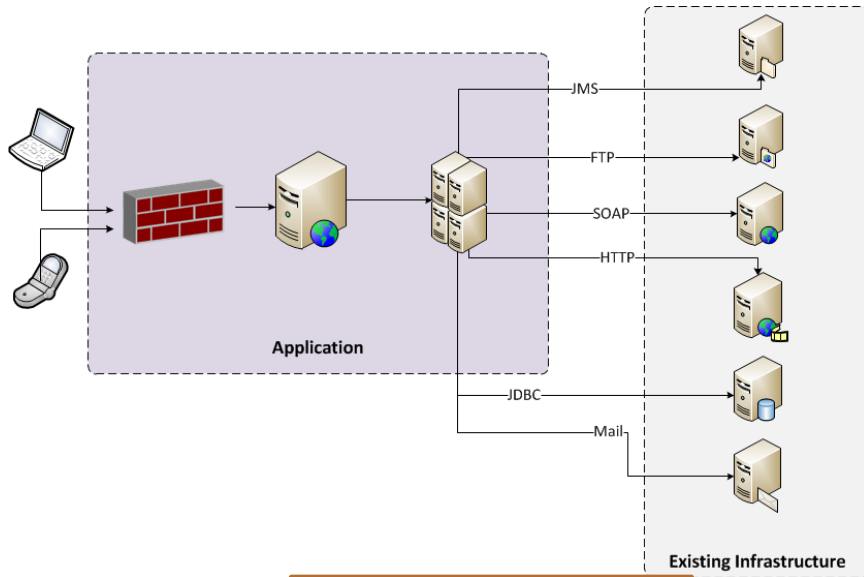


SimulateBox: Applications simulation tool

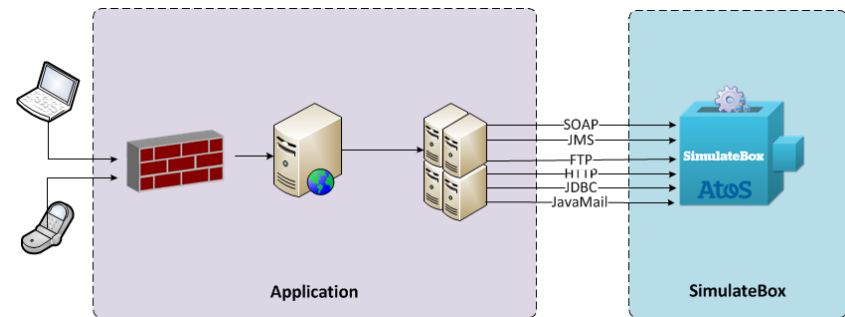
Simulation engine



- ▶ SimulateBox overcomes the unavailability of the existing infrastructure during the testing phases
 - “Supplier” application simulation : Responder or Mock Mode
 - “Client” application simulation : Injector Mode



Connected Mode



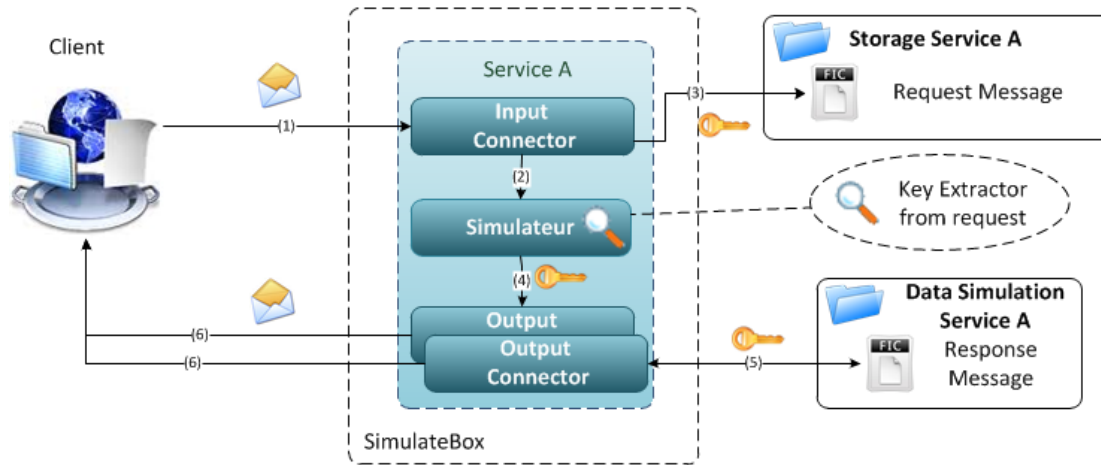
Simulated Mode (supplier)

SimulateBox: Applications simulation tool

Simulation engine



► « Service » simulation



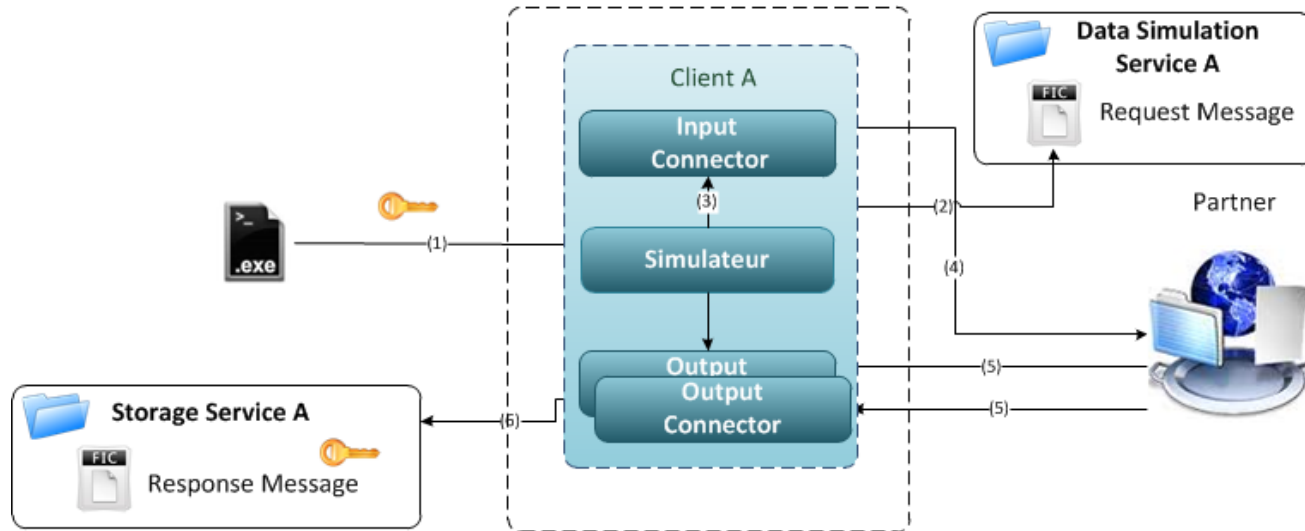
- Step 1: Receipt of the request from the client by listening (HTTP(S), SOAP, ...), polling (JMS, FTP, ...)
- Step 2: Extraction of the simulation key from the query
- Step 3: Persistence of the query
- Step 4: Transmission of the key to outgoing connectors
- Step 5: Retrieval of the answer to transmit
- Step 6: Responses emission to the client

SimulateBox: Applications simulation tool

Simulation engine



► « Client » simulation



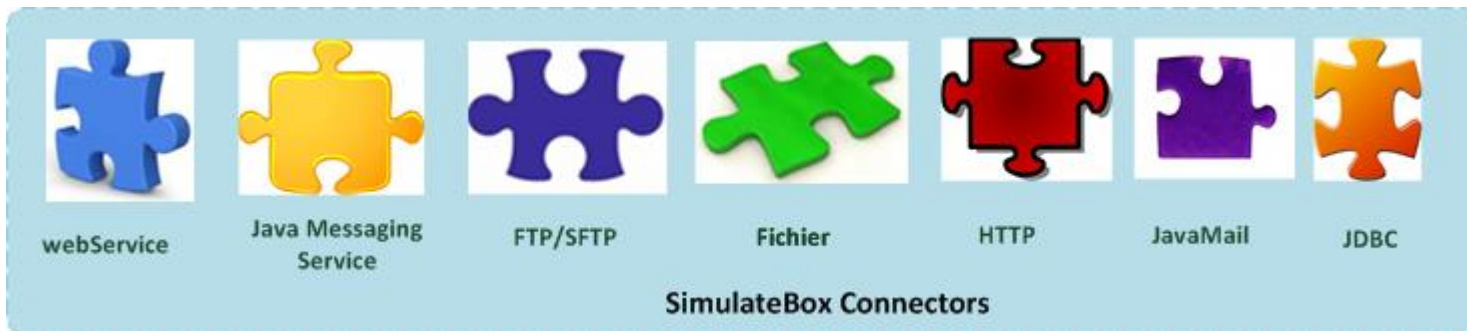
- Step 1 : Request to issue a query by key simulation
- Step 2 : Retrieval of the request to issue
- Step 3 : Transmission of the query to the "incoming" connector
- Step 4 : Query sending to the partner
- Step 5 : Receipt of response (s) from the partner
- Step 6 : Persistence of answer (s)

SimulateBox: Applications simulation tool

A full range of connectors



- ▶ SimulateBox offers a complete range of connectors allowing to simulate partner applications independently of the technology :
 - Web Service with or without WS-Security
 - Java Messaging Service in a « Queue » or « Topic » mode
 - File mode : Local, FTP, SFTP
 - HTTP (REST services)
 - JavaMail (SMTP/POP3/IMAP)
 - JDBC (MySQL, MS SQL, Oracle, DB2)



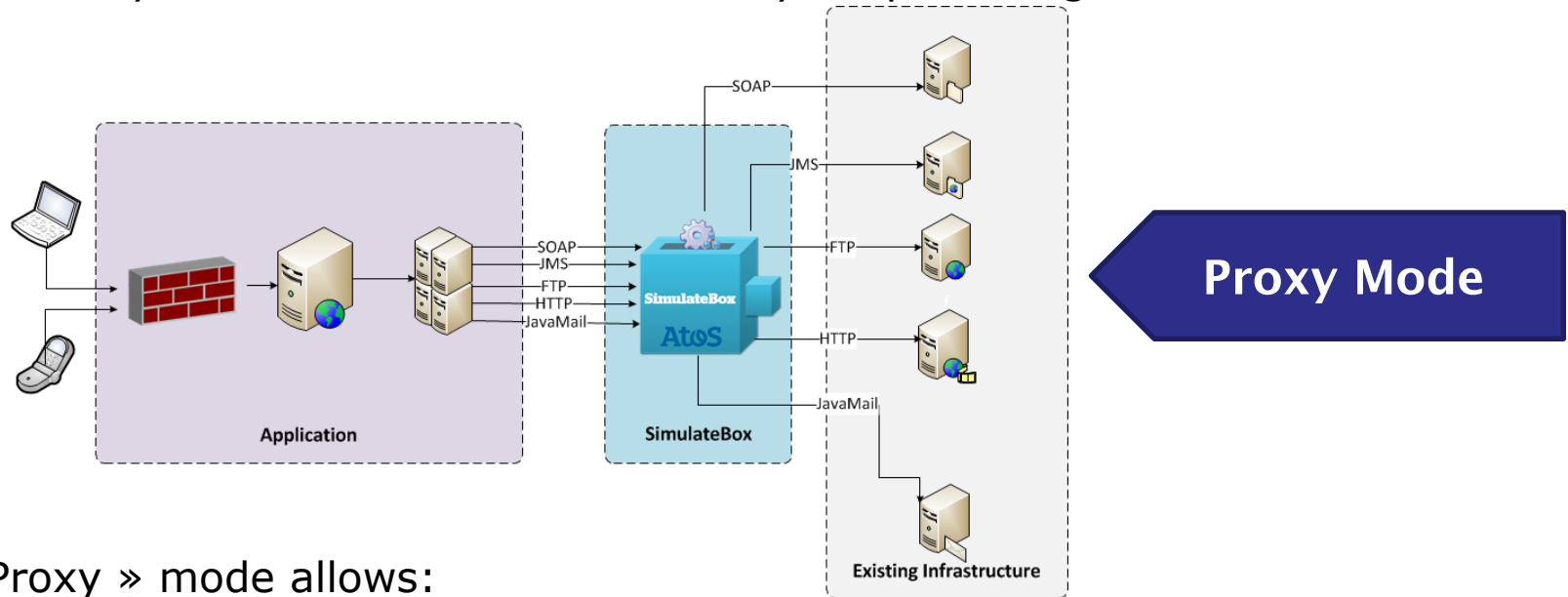
- ▶ SimulateBox allows mixing connectors of different technologies for a single simulation component

SimulateBox: Applications simulation tool

Proxy functionality



- ▶ SimulateBox natively provides a "Proxy" mode
 - Redirects the request sent by a client to the "actual" service provider while recording requests / responses in transit.
 - Proxy mode is enabled / disabled by simple configuration



- ▶ « Proxy » mode allows:
 - to overcome the temporary unavailability of a partner
 - to simplify the generation of data sets for an existing partner

SimulateBox: Applications simulation tool

Simulation GUI



- ▶ In a client mode, a web interface allows running queries easily and seeing the associated results

The screenshot displays the SimulateBox web interface. At the top, there is a blue header with the 'Atos / SimulateBox' logo on the left and 'Welcome simul' and a 'Logout' link on the right. Below the header is a navigation bar with four buttons: 'Injection', 'Add Data', 'Edit Component', and 'Infos'. The main content area is divided into two panels. The left panel, titled 'Running simulation clients', contains a table with one row: 'add'. The right panel, titled 'Simulation clients files', contains a table with six rows: '1_1.xml', '1_2.xml', '2_1.xml', '2_2.xml', '3_1.xml', and '3_2.xml'. Each row in this table has a play button icon on the right. Below these panels is a 'Simulation results' section with a table that currently shows 'No records found.' and a 'Clear' button at the bottom.

Id
add

Filename
1_1.xml
1_2.xml
2_1.xml
2_2.xml
3_1.xml
3_2.xml

Status	Start Date	End Date	Client	Simulation File
No records found.				

Clear

SimulateBox: Applications simulation tool

Generation of simulation data sets



- ▶ SimulateBox enables automated generation of data sets
 - via the add-on Generator : generation of datasets from an Excel document
 - via the activation of the exchanges recording Proxy function : allows to rerun the data actually exchanged in a Simulator mode

