

Technology at work for you



CREATE RESTFUL WEB SERVICES WITH CONSULTIX WEB SERVICE SERVER

The Consultix Web Service Server solution allows to create RESTFUL 4GL/ESQLC web services with a minimal development effort.

EASY IMPLEMENTATION

- Directly deploy the solution with no need to install & configure a web application server.
- Autonomous and directly embeddable as a new tile amongst the other Informix products.

The Consultix Web Service Server solution is multi-process and multi-threaded.

PERFORMANCE & ROBUSTNESS

The solution is very highly scalable as it handles load increases and allows multi-threaded 4GL web services although the 4GL language is not natively multi-threadable.

Consultix Web Service Server has been designed and optimized for a minimal impact on response times.

Tests have been run on millions of requests and show a negligible increase in term of response times whilst maintaining robustness and scalability.



COMPATIBILITY: 100% CODE REUSABILITY

All your existing 4GL and ESQLC code is reusable and 100% compatible with the Consultix Web Service Server solution. You will be able to reuse all 4GL functions and libraries already in place without modification in order to create your web services.



SIMPLE IMPLEMENTATION

The developer will have access to a new 4GL or ESQLC library depending on the used programming language. From that, he/she will just have to add a few new function calls in order to create as many web services as he/she wants by reusing the existing business logic, from the 4GL and ESQLC libraries and/or programs previously developed.



REST PROTOCOL SUPPORT

The solution manages all different operations included in the REST PROTOCOL (GET, POST, PUT, DELETE, ...). The solution also allows the implementation of consumer web services as well as exposing them.

BENEFITS OF THE SOLUTION

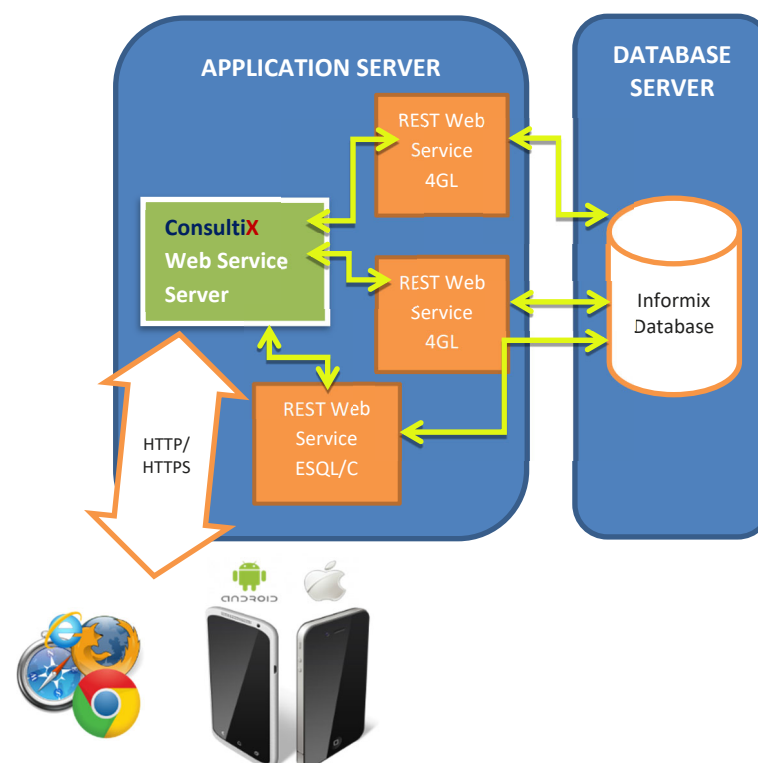
- ROBUSTNESS, SCALABILITY & PERFORMANCE.
- FLEXIBLE ARCHITECTURE.
- 100% CODE RÉUSABILITY & COMPATIBILITY.
- EASY IMPLEMENTATION.
- REST PROTOCOL SUPPORT.
- COMPATIBILITY WITH MAJOR WEB DATA EXCHANGE STANDARD FORMATS.
- SECURITY.

Consultix Web Service Server

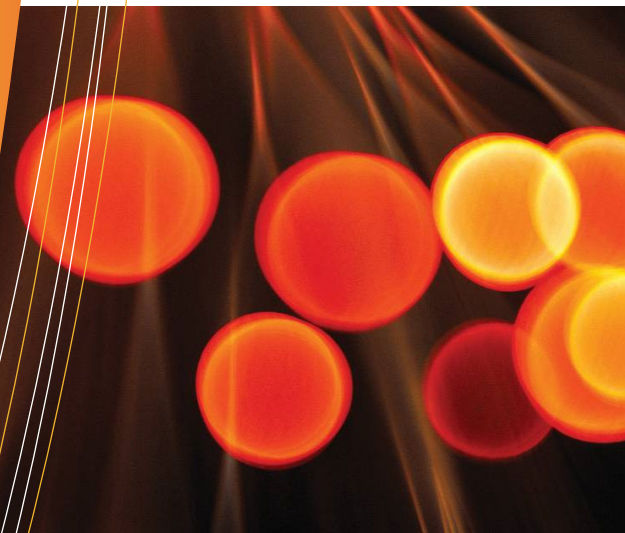
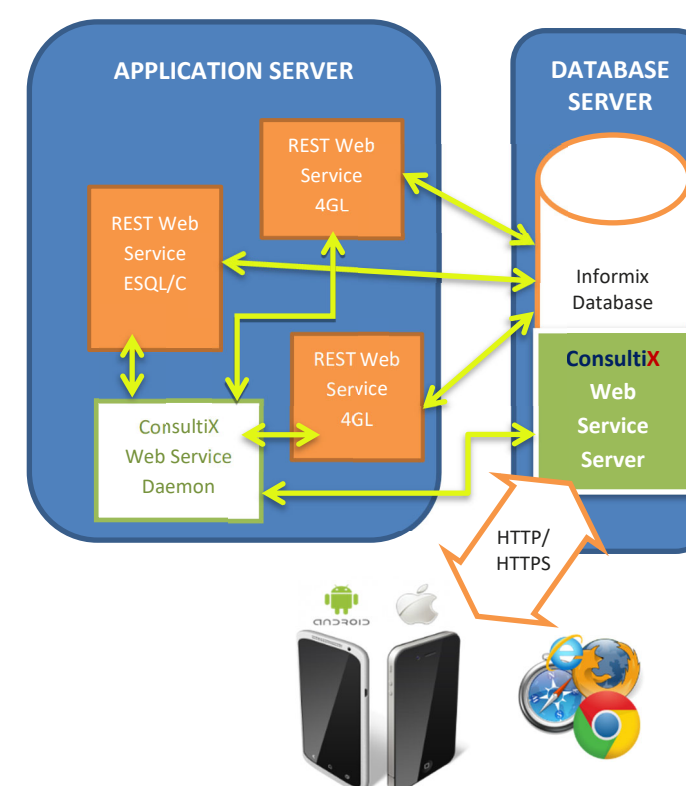
FLEXIBLE ARCHITECTURE

CONSULTIX WEB SERVICE SERVER comes with 2 possible architectures. Using one or another, the front-server may be installed :

• DIRECTLY ON YOUR APPLICATION SERVER :



• OR ON YOUR DATABASE SERVER :



WEB SERVICES YOU CAN DEVELOP WITH CONSULTIX WEBSERVICE SERVER

This solution offers infinite possibilities for developing different types of web services in 4GL or in ESQL/C :

- Web service performing updates in a table in an Informix database.
- Web service to trigger a 4GL batch or a stored procedure launching.
- Web service for the interrogation of a product stock or a client command.
- ...

EXAMPLES OF WEB SERVICES REALISED WITH THIS SOLUTION

- Inter-agency interrogation of an article stock using JSON and/or XML format.
- Transmission of a product command with injection inside the Informix database.
- Command consulting within SAP or C4C software.

SIMPLIFIED IMPLEMENTATION

The developer will have access to a new 4GL or ESQL/C library depending on the used language.

Then he will only have to implement a few function calls to that library in order to create as much web services as he wants, reusing if he wants the 4GL / ESQLC business code already in place.

Code example :

```
WHILE TRUE
  CALL cxwss_start_service() RETURNING wsstatut
  IF wsstatut != 0 THEN
    EXIT WHILE
  END IF
  LET method = cxwss_getmethod()
  IF method = "GET" THEN
    LET customer_id = cxwss_getparameter('customer_id')
    ...
    LET ret = cxwss_status(200) -- HTTP/1.1 200 OK
    ...
    LET ret = cxwss_format("json","")
    ...
    LET ret = cxwss_write(jsondocument)
    ...
  ELSE
    LET ret = CALL cxwss_status(405) -- HTTP/1.1 405 Method Not Allowed
    ...
  END IF
  ...
END WHILE
```

REST PROTOCOLE HANDLING

The solution allows to manage all kinds of operations existing in the REST protocol: GET, POST, PUT, DELETE, HEAD ...

COMPATIBILITY OF THE SOLUTION WITH WEB EXCHANGE STANDARD FORMATS.

This solution lets you manipulate JSON format as well as XML format for data exchange between 4GL and/or ESQL/C programs and the Informix database or the web.

SECURITY

The solution includes the OpenSSL library with its SSL/HTTPS protocol, so that you can encrypt data exchanges between the web services and the external world.

EXPOSING A WEB SERVICE OR CONSUMING ONE

This solution allows the building of a consumer web service as well as exposing a web service.

COMMUNICATION WITH INFORMIX DATABASES

With the Consultix Web Service Server solution, communication with the Informix database via web services is done in the simplest way : continue to use the same SQL statements that have already been implemented in the 4GL and/or ESQL/C programs.

OPEN YOUR 4GL AND ESQL/C APPLICATIONS TO INTRANET AND WEB

With our solution you will be able to communicate with external applications (such as SAP) or existing JAVA or DotNet web services.

All what is needed is that these external applications be able to expose or consume RESTFUL web services.

The logo for ConsultiX, featuring the word "ConsultiX" in a stylized font. "Consulti" is in blue and "X" is in red. The "i" has a red dot. The logo is set against a white background with a dark blue curved shape below it.

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