



## Leverage Your Business Capability with Service Architect

With our decades experience in digital transformation, the best digital architect that allows flexibility in business changes is service\* architect.

“The concept of designing every task into services, creating a bunch of small puzzles that can be reused to significantly shorten time to create new products.”

S-Square or SSQ is designed to help you create service easily and quickly without worrying too much about technical knowledge or the need of specialists in IT field.

\* The term “Service” in this article describes a program or set of instructions that do something to serve business, the same meaning as “API” or “Microservice” in other articles.

## Obstacles in service development

The problem that always occurs in service development are:

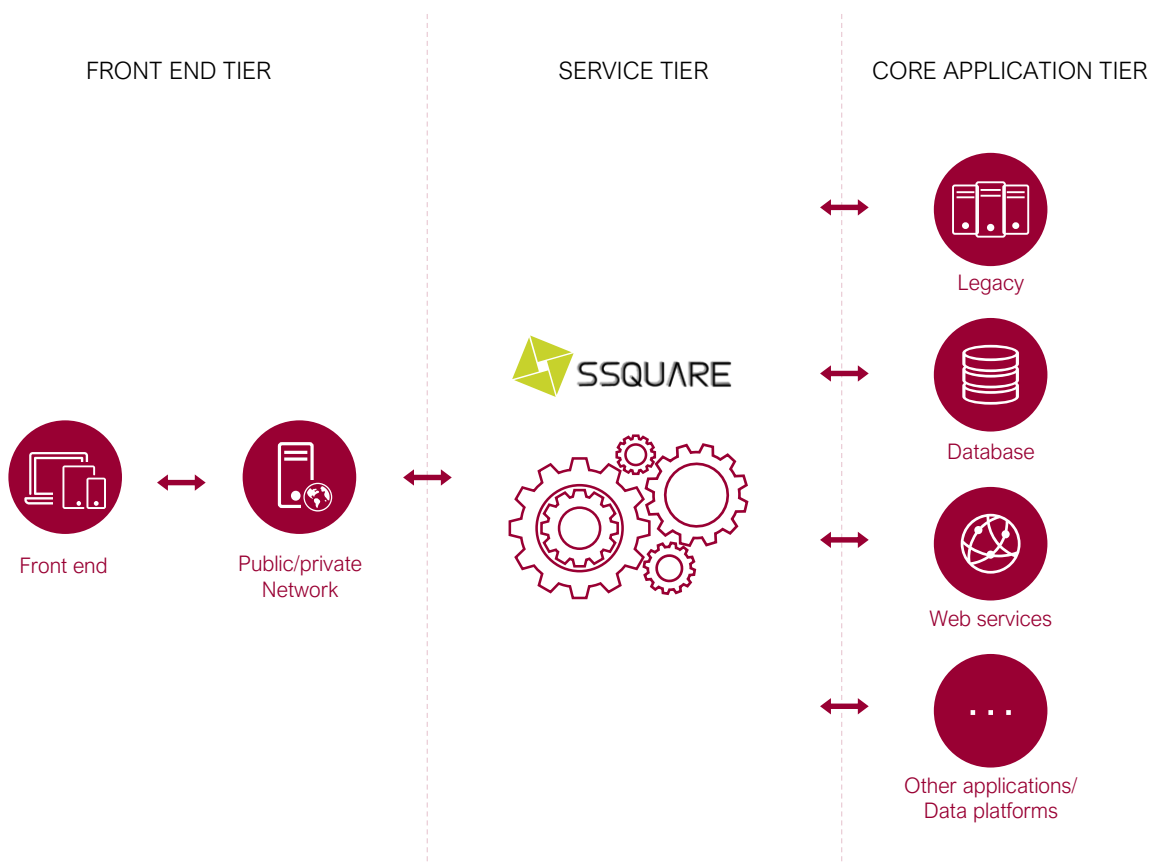
- **Conventional coding is time consumed:** Development team struggles with lines of code to create a service. If there is any change, they need to inspect almost every single line to fix it.
- **Service integration requires cross-functional teams:** An enterprise service basically requires multiple systems integration. Each system owner needs to share all necessary information to others to streamline the integration.
- **Testing takes too much effort:** When service errors, development team needs to find out the cause of failure, interrupting development time of irrelevant teams.
- **Service development requires specialists:** Efficient service requires specialists to verify coding, collaborate with the owner of related systems, and prepare testing scenario.



## Why S-Square

S-Square simplifies and speeds up service development using GUI, enables

- **Quick development:** With the concept of low coding, you can drag & drop S-Square components and edit their configurations to create a service. With completed service design, you can create a service within minutes.
- **Seamless integration:** S-Square provides adapters where you can use to connect new technology or even legacy such as IBM i (AS/400) to create a productive service.
- **Accurate testing:** You can use built-in testing feature to check its result. The animated testing will show which component performs successfully and which component does not so that you can fix the error appropriately.
- **Less skillful human resource:** You can let staff from business team who know business requirement create service without worrying too much about technical knowledge of software development.



# 5 Easy Steps to Develop Service

There are only 5 easy steps to create a service with S-Square:

01



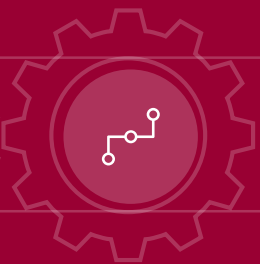
Design  
service

02



Create  
components

03



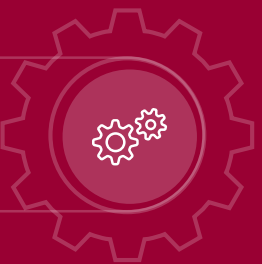
Assemble  
service

04



Test  
service

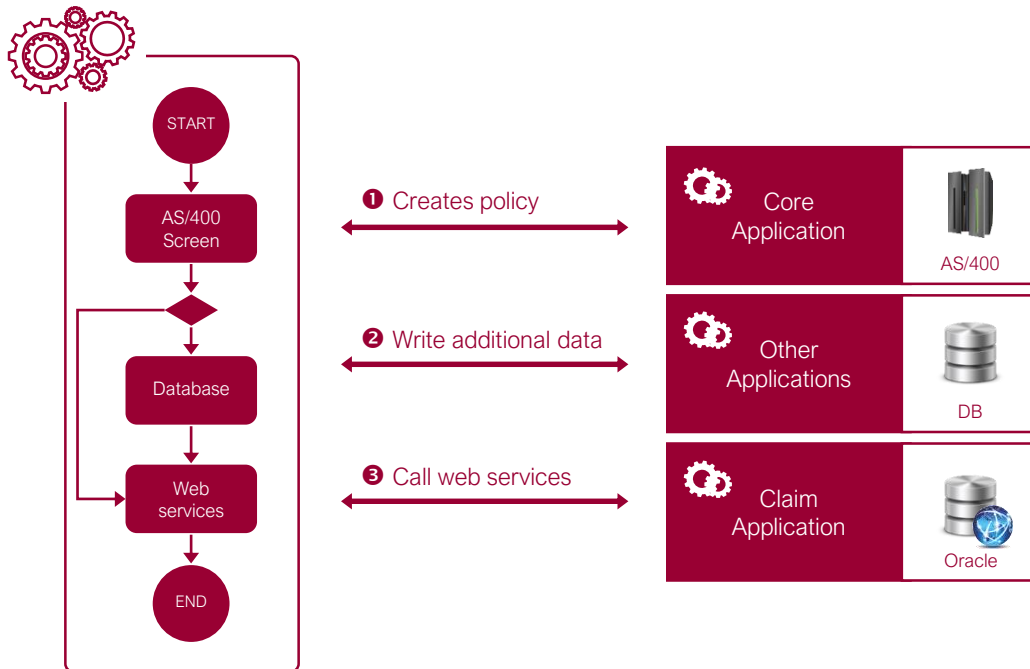
05



Publish  
service



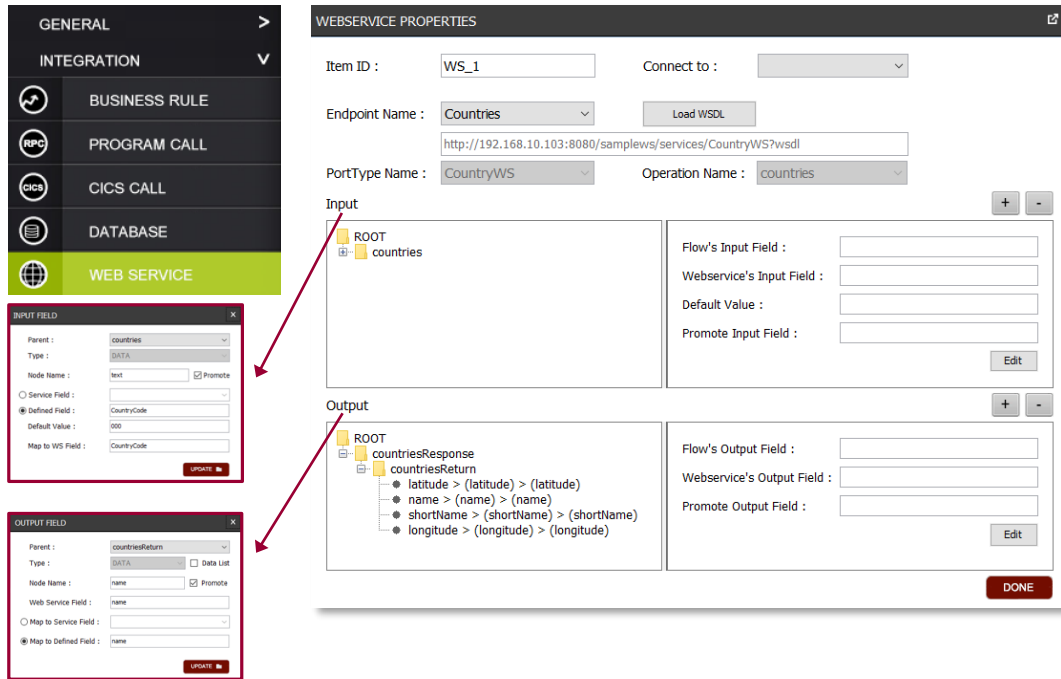
## STEP 1: Design Service



- Before start developing a service, you must define the service purpose, functionality, interface specification, and related systems for integration. Once the service design is completed, you can use S-Square to create service component\* in minutes.
- The above example is a service for an insurance company that will create customer policy on legacy system (AS/400), update additional information on database, and register policy in claim system by calling web service.
- Then, we start designing service specification and interfaces of those three systems or components (AS/400 Screen, Database and Web Service) and finally come out with the design of service workflow as shown in the picture.

\* Services component is a small part of the whole service, connecting to underlying systems or other services.

## STEP 2: Create Components



**GENERAL** >  
**INTEGRATION** v

- BUSINESS RULE
- PROGRAM CALL
- CICS CALL
- DATABASE
- WEB SERVICE**

**WEBSERVICE PROPERTIES**

Item ID :  Connect to :

Endpoint Name :

PortType Name :  Operation Name :

**Input** + -

- ROOT
  - countries

Flow's Input Field :   
 Webservice's Input Field :   
 Default Value :   
 Promote Input Field :

**Output** + -

- ROOT
  - countriesResponse
    - latitude > (latitude) > (latitude)
    - name > (name) > (name)
    - shortName > (shortName) > (shortName)
    - longitude > (longitude) > (longitude)

Flow's Output Field :   
 Webservice's Output Field :   
 Promote Output Field :

**INPUT FIELD**

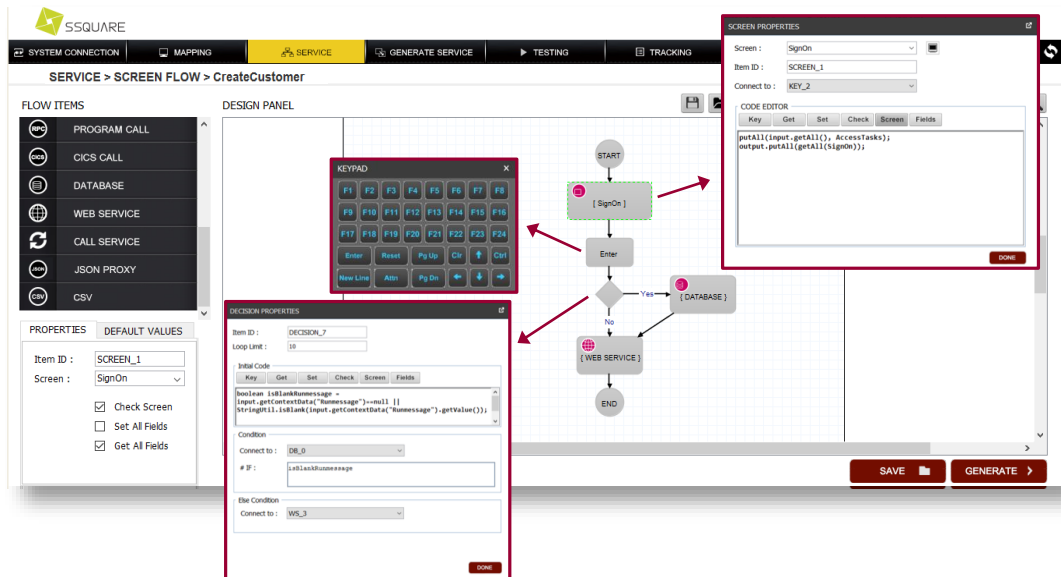
Parent :   
 Type :   
 Node Name :   Promote  
 Service Field :   
 Default Value :   
 Map to WS Field :

**OUTPUT FIELD**

Parent :   
 Type :   Data List  
 Node Name :   Promote  
 Web Service Field :   
 Map to Service Field :   
 Map to Defined Field :

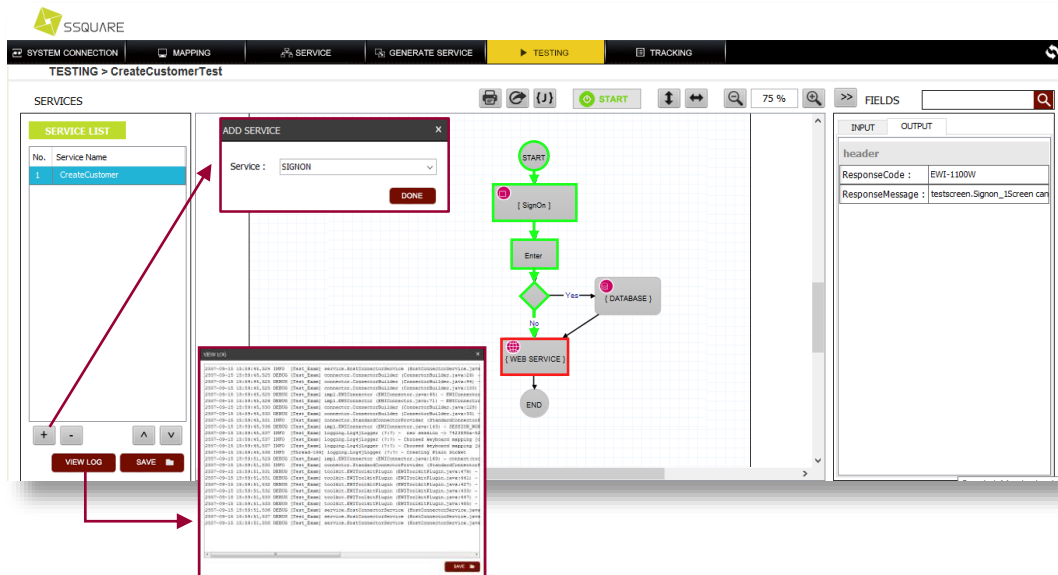
- You can easily select service component in S-Square and edit its configuration to create service integration with related systems.

## STEP 3: Assemble Service



- After creating required service components, you can complete service by connecting each service component together. S-Square will generate service into source code automatically.

## STEP 4: Test Service 🔍

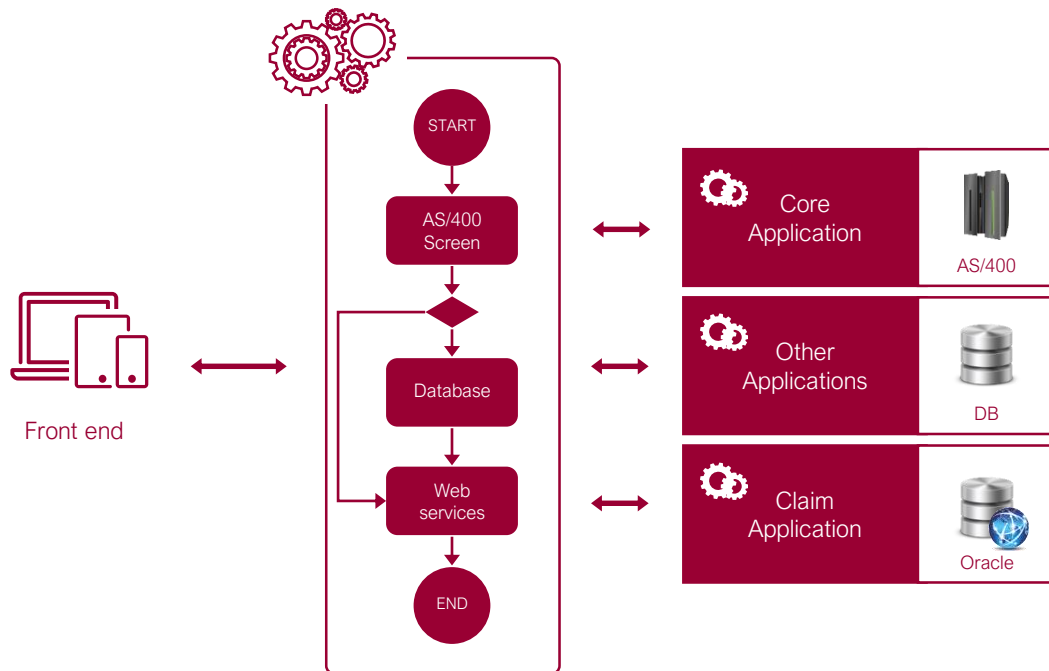


The screenshot shows the SSQUARE testing interface for a service named 'CreateCustomerTest'. The interface includes a 'SERVICES' list on the left, an 'ADD SERVICE' dialog box, a central flowchart, and a 'VIEW LOG' window at the bottom. The flowchart shows a process starting with 'START', followed by a green box labeled '{ SignOn }', then a green box labeled 'Error', a decision diamond, a 'Yes' path leading to a red box labeled '( DATABASE )', and finally a red box labeled '( WEB SERVICE )' leading to 'END'. The 'VIEW LOG' window displays a detailed log of system events, including timestamps and service names. The 'INPUT' and 'OUTPUT' sections on the right show the response code 'EWT-1100W' and the response message 'testscreen.Signon\_IsScreen can'.

- You can test your service with built-in testing feature where will show how service works with visual testing animation. You can easily check which components perform successfully (green color) and which ones fail (red color). You can also see detailed testing logs for further inspection.



## STEP 5: Publish Service



- When the service is completely done, you can publish the service in S-Square server and it will be ready for any request from front-end or application.