

# Souq.com Architecture

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# Chapter 1

## Business Architecture

### 1.1 Mission

Souq.com connects people and products opening up a world of possibility. From bracelets and backpacks to tablets and toy cars It gives you access to everything you need and want. Our range is unparalleled, and our prices unbeatable. Driven by smart technology, everything they do is designed to put the power directly in your hands giving you the freedom to shop however, whenever and wherever you like.

### 1.2 Vision



Figure 1.1: Ronaldo Mouchawar (CEO - Souq Group)

”Our merchants are growing and are also creating jobs. We especially desire to see the creation of smart jobs, creating an ecosystem, for young people. We have a huge population in the region and the more jobs we can create that are technology driven, the better opportunities which will be created in the future. The

young people will be leaders in their own domains, creating their own platforms and their own business down the road. This is the kind of mission that excite us and a great motivator for Souq.com in the years we have been operational.”

### 1.3 Challenges

- **Lack Of Trust** In the early years of Souq.com, The Middle East market was lacking penetration of credit cards as well as lack of trust of online purchases or transactions. That was one of the biggest challenge that was holding Souq.com from growing. Souq tried resolving this issue with Cash on Delivery which is still doing. the online consumers’ environment has changed dramatically in the last couple of years. At the same time, Souq operations has improved and developed during the same period. Credit Card penetration has now grown up and younger generations have accepted to take the risk on purchasing online in return to the benefits gained.
- **Increased Website Traffic**  
Every month, Souq.com attracts more than 40 million. And it could get a surge in traffic every season. This is obviously great but it can be unpredictable and the last thing you want during this period is to have your website go off line because you have exceeded your traffic limits.
- **New Challengers**  
with online marketplaces such as Jumia in Africa or more internationally marketplaces like ebay, it is becoming harder for Souq.com to grow more and maintain its customer loyalty.

### 1.4 Merges & Acquisitions

- **Acquiring Wing.ae**  
In September 2017, Souq.com announced it has entered into a definitive agreement to purchase Wing.ae, a marketplace for merchants and couriers in the UAE, providing innovative mobile and web-based user-friendly delivery solutions for businesses and individual consumers. Souq.com previously invested in Wing.ae and will be acquiring 100% of the company.

- **Amazon Acquiring Souq.com**

In March 2017, Amazon announced that it has reached an agreement to acquire Souq.com. Joining the Amazon family will enable Souq.com to continue growing while working with Amazon to bring even more products and offerings to customers worldwide.

- **Possible Merges & Acquisitions**

Souq.com can deliver only to the six Gulf countries (UAE, Saudi Arabia, Kuwait, Bahrain, Oman and Qatar) and Egypt. Merging with other online marketplaces such as Jumia to increase its shipping options to some African countries such as Morocco. It could also acquire ZAGifts.com, a very well-known online shopping website in the UAE, to increase its popularity.

## 1.5 Future Growth

As for now, many people consider Souq.com as the Amazon of the Arab World. However it could grow more if it increases its delivery options to more Arabic countries. Or it could grow even more if it goes more international moving on to European and American countries. This will help a lot to expand the delivery service.

Business Supplies - Although, Souq.com has over 8.4 million products in 31 categories like consumer electronics, fashion, health and beauty, household goods, and baby, It can expand its business supplies even more by sells everything a company needs, from basic office supplies to industry-specific products like lab equipment or hospital wear, for example.





## Chapter 2

# Information Architecture

### 2.1 Nature Of Information

Although, Souq.com has to deal with million of users data, million of products data, newsletters and more, These information are not very big. Most of it is raw text and some images. However, these are important data that need to be secured well.

### 2.2 Information Souq.com Deals With

The main and most important data the Souq.com deals with is :

1. **Users Data** that includes Emails, Names, Usernames, Passwords, Phone numbers, Addresses, Orders, Wish lists and more.
2. **Products Data** that includes Names, Brands, Images, Prices, Discounts, Ratings, Feedback, Description, Category, Available amount in stock and more.

### 2.3 Information Growth Rate

Of course information in Souq.com grows over time as in every other organization. But due to the nature of information that Souq.com deals with, information growth rate is manageable. So, Information growth is not a major problem to worry about in the organization.

## **2.4 Most suitable storage solution**

Cloud Storage is the most suitable solution for Souq.com to store its data. It has so many benefits such as: Cost saving, Speed, Scalability, Security, etc.

## **2.5 How information architecture will affect the future capabilities?**

As discussed before, the information here is quite small comparing to its amount. It is manageable to deal with and it should not have any major affect in the future.

## Chapter 3

# IT Architecture

### 3.1 IT Infrastructure Capabilities

Cloud infrastructure has also provided other benefits, such as self-service flexibility, ease of software and application development and an automated infrastructure. In traditional IT, predicting capacity is tricky. They would overestimate and overpay for capacity as lacking capacity is not an alternative. Cloud computing helps Souq.com to overcome this problem and the IT team is able to predict capacity requirements more accurately now. IT team also was clear about ensuring its cloud infrastructure was secure.

### 3.2 Does Cloud Fit Souq.com current/future needs?

with cloud computing infrastructure, predicting capacity requirements accurately is a lot easier. If there is any lack of capacity, it is easy to increase it without overpaying for any hardware or overestimate it.

### 3.3 Facing Information Architecture Challenges

Souq.com can face most of the challenges if the IT team develops a private cloud facility of its own. This might be very difficult any expensive, but it will help very much to avoid any kind of supplier lock-in. Security, Interoperability, Portability, Reliability, Availability, Performance and Bandwidth Cost, all these aspects could be managed very smoothly with a private cloud facility of its own.

### 3.4 What Model Of Cloud Does Souq.com Need?

Private model is the best solution that fits Souq.com needs in term of Security.

## 3.5 The Criteria To Choose Between Different Cloud Services Providers

### 1. CLOUD ADMINISTRATION

- **APIs and data transformations**

A clouds Application Programming Interface (API) is the software interface that lets the company plug in to the cloud. This is perhaps the most important place for standardization. For an organization to easily build connections between its internal data center and the cloud, it must use standardized APIs and data transformation capabilities.

- **Support**

Support problems don't disappear when infrastructures move to the cloud. You have to make sure that support targets are agreed on in advance with a cloud services provider. Therefore, The company must align its internal support team to deal with both internal customers and the cloud provider.

### 2. CLOUD TECHNICAL INTERFACE

- **Security in the cloud**

Companies planning to use cloud services must be assured of tight, well-defined security services. Many levels of security are required within a cloud environment:

- **Identity management:**

For example, so that any application service or even hardware component can be authorized on a personal or group role basis.

- **Access control:**

There also needs to be the right level of access control within the cloud environment to protect the security of resources.

- **Authorization and authentication:**

There must be an authentication mechanism so the right people can change applications and data.

- **Service level agreements and monitoring**

Every company that buys any service from a cloud service provider must either accept a standard service level agreement (SLA) from the provider or negotiate such an agreement.

## Chapter 4

# Software Architecture

### 4.1 Best Software Architecture For Souq.com

For such big organizations, you can find all sorts of software architectures from MVC to IoC to things you've never heard of. Sometimes a mix and match of several patterns. In my opinion, the best option is a Custom Build. It is more scalable and specialized.

#### **Pros**

- Total control of site and functionality.
- No restrictions on functionality or creative execution.
- Platform can be re-purposed for mobile site and applications.
- Can use custom functionality to differentiate from the competition.

#### **Cons**

- Larger initial investment.

### 4.2 How This Software Architecture Helps Facing Challenges

A custom build software architecture can be very useful giving so many benefits. It will help provide better customer services like faster delivery, better customer support, etc. Thus, keeping old customers loyal and gaining new customers. It will also give total control of the site and functionality giving the best user experience possible.