# Azure Architecture Review

## Scalable | Resilient | Cost Effective

*NewOrbit works with Azure developers to review and improve the architecture for new and existing applications in order to get the most benefit from Azure.*

*There is no one-size-fits-all architecture for cloud-based applications. Every choice has trade-offs in terms of cost and time. We work with you to understand your business requirements and constraints so we can recommend the best fit for your situation, both from a business and a technical perspective.*

## Our process goes through the following steps:

1. Understand your scale and performance requirements and your business constraints.
2. Understand your current architecture.
3. Suggest a suitable Azure architecture based on your specific situation.
4. Help you to plan how to implement this.

Each step is outlined in more detail below, with example questions. We will ask you many more questions during the consultation. Do bear in mind that many of the questions are over the top for many scenarios; we will evaluate the appropriateness with you based on your specific context.

# Requirements and Constraints

What do you need the system to do, when and how much do you want to spend?

| Area | Example questions |
|---|---|
| **Traffic** | *How much traffic do you expect? How spiky is it? What happens if you can't satisfy a spike in traffic?* |
| **Data** | *How much data will you need to store? How long for? What are the kinds of data? Does it make sense to use different types of data stores for different kinds of data?* |
| **Performance** | *What are users' expectation of front-end performance? How sensitive are you to cold starts? How sensitive are you to asynchronous processing and eventual consistency patterns?* |
| **Resilience** | *What level of SLA are you expected to provide? What happens if you don't?* |
| **Constraints** | *What time constraints do you have? I.e. what tradeoff is right in terms of shipping early vs shipping "right"? What financial constraints do you have on development and hosting costs, given your revenue model? Are there tradeoffs to be had, i.e. do you want to spend more to ship early, or are you happy to incur technical debt etc.* |

# Current situation

What, if anything, do you have now?

| Area | Example questions |
|---|---|
| **What is your application architecture?** | • Monolithic or distributed?<br>• Background jobs?<br>• SPA or server rendering?<br>• How well does it cope with spikes in usage? |
| **What does your infrastructure look like?** | • How is the system hosted?<br>• Where is data stored?<br>• Do you have a CI/CD pipeline? |
| **What is your code like?** | • What languages and frameworks do you use?<br>• How likely is the code to require "high trust"?<br>• What operating system(s) can the code run on? |
| **What monitoring do you have in place?** | • Application trace logs?<br>• An APM tool?<br>• Any automated base lining, monitoring or alerts? |
| **What about your team?** | • What skills does your team have in relation to the cloud?<br>• What capacity do you have? |

# Architecture and Plan

As we go through the preceding sections, we will discuss various technology options with you. We usually discover some low-hanging fruit that can be put into place very quickly as well as other things that will take longer and may end up on a product roadmap. We will help you to estimate the cost/benefit of the different options and help you to prioritise accordingly.

# Implement

If desired, NewOrbit can help you to implement parts or all of the plan;

- We can introduce your team to the selected tools and help you design the solution.
- We can second a Azure developer to your team to pair-program on the initial implementation of a particular technology.
- We can provide you with development and design capacity to help you build parts of the solution.
- We can be your Azure Cloud Solution Provider, providing you with Azure hosting and giving you access to Azure experts and support as needed.