Applied Informatics

G-Cloud Service Definition

Architecture and Design

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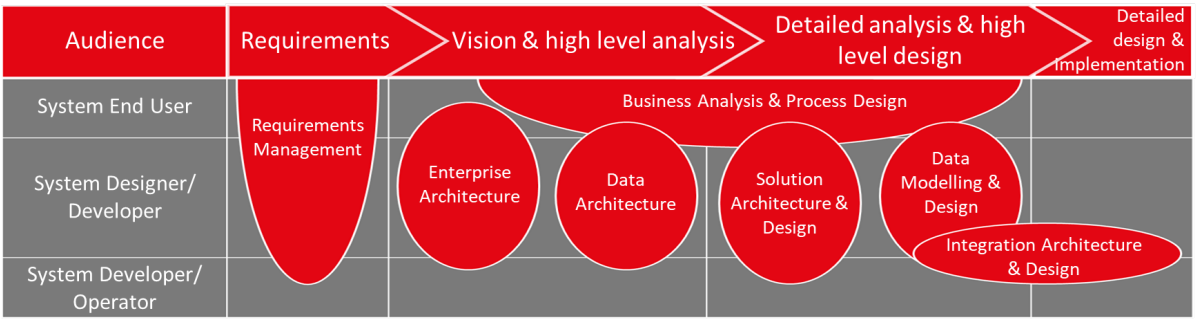
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1 Service description

Architecture provides the means of seeing the big picture by focusing on the system's fundamental structures, relationships and interactions, and defines the principles and constraints used to guide design and development.

Unfortunately, rather than being the result of an explicit plan, many systems are simply the product of accumulated project-specific development decisions made in the absence of any set of overarching principles or constraints. This approach becomes increasingly unsustainable as the system grows in complexity and becomes more and more difficult to maintain, modify and extend.

The key to successful architecture and design is applying the right amount of the right kind at the right time. With this in mind our Architecture and Design services offer a modular approach that enables us to work with clients at any stage of their system journey – from requirements gathering to detailed design – to identify and focus on those areas of the system needing architectural input to guide development. This may be because of their criticality to the success of the project, complexity or level of risk. This is sometimes referred to as "just enough architecture" and emphasises the important role of architecture in mitigating project risk early on.



Our proven model based methods are process agnostic and work well both with clients who prefer to adopt a more architecture led approach, using frameworks such as TOGAF®, as well as with those following more implementation led approaches such as Agile and DevOps. Equally, our methods are suited to clients looking to procure, deploy and configure existing COTS solutions as well as those undertaking bespoke development.

Our services cover the following key areas of architecture expertise.

Requirements Management used to capture, organise and manage user stories and other requirement artefacts throughout the project.

Architecture used to create high level analysis and design artefacts of the problem domain for guiding overall system development.

- Enterprise Architecture
- Methods & Tools
- Data Architecture
- Solution and Integration Architecture

Analysis and design used to investigate specific areas of the problem domain in more detail and to produce detailed design artefacts for developers to implement.

- Business Analysis & Process Design
- Data Modelling & Design
- Solution and Integration Design

Our services are most effective when engaged early at each stage in the journey as it allows us to gain maximum insight into the problem domain, work with users to develop appropriate architectural solutions and examine ways to reduce costs.

1.1 Service features

- Work closely with stakeholders to identify and focus on most critical, complex or high risk areas, including system requirements, processes, components, interconnectivity, security, performance, reliability, scalability and technology choice.
- Defines guiding principles, constraints and methods from gathering and analysing user stories through solution design to application integration.
- Process agnostic – can be applied equally well to Agile, DevOps, iterative and waterfall methodologies.
- Proven methods and approaches that build the big picture through a set of interconnected model viewpoints, including user stories, use cases, and process and data models.

1.2 Service benefits

- Creates a robust foundation for planning and directing any technology enabled business change, helping ensure a more predictable project lifecycle and development process.
- Makes it easier to build, maintain and extend system.
- Enables system to be understood and discussed from different stakeholder perspectives, including those of system commissioners and owners, end users, developers and operators.
- Reduces project risk through better decision making, including consideration of alternative approaches and trade-offs to achieving the optimal solution.
- Ensures system quality attributes such as security, performance, reliability, scalability and maintainability are considered from the outset, together with functional needs, rather than being an expensive afterthought.
- Enables knowledge about the domain and system to be captured, organised and shared.
- Reduces complexity and promotes best practice through appropriate choice of proven architecture patterns and approaches.

1.3 Related services

- Requirements Management
- Business Analysis & Process Design
- Data Architecture
- Data Modelling & Design
- Integration Architecture & Design

2 Service provision

2.1 Requesting the service

Following a request from the client, we will arrange a meeting to gain an overview of the client's project (including objectives, timelines, budget, etc.) and to understand the client's needs and types of deliverables that need to be produced.

Based on this we will design a tailored package of one or more architecture services with specialists assigned to deliver them.

2.2 Required inputs

While the specific inputs required depend on the service to be provided, they generally include the following:

- Project plan (or similar documentation) describing scope, objectives, stakeholders, deliverables, approach, governance processes and timelines.
- Project team roles and responsibilities.
- Any additional background information regarding the project.
- Relevant business or technical documentation, e.g. IT and data strategies, migration plans, business, data and system requirements, business process / data flows, use cases, architecture principles, standards and models and other system architecture documentation.
- One or more statements of work.

2.3 Providing the service

Service provision is highly collaborative and tailored to each client's project, business, technical and cultural needs.

We therefore consult closely with the client to advise and agree the best methods and tools to use based on the objectives, scope, and time and cost constraints of the project. This is underpinned by our guarantee to follow an approach that:

- is **transparent and collaborative** in the way that we work with our clients;
- is **stakeholder and user driven** with listening to clients at its heart;
- is **iterative and adaptive**, allowing us to learn together as we progress;
- aims to **strike the right balance** by looking beneath the surface to understand and tackle underlying issues, while still delivering business value to our clients;
- values **interoperability and vendor neutrality**;
- is **model based**, ensuring our deliverables are underpinned by a consistent and meaningful architectural foundation based on systematic analysis;
- uses and tailors **international, industry or de facto standards** to meet client's needs;
- takes into consideration **existing business and technical capabilities**; and
- adopts **existing solutions** where they meet client needs.

2.4 Service deliverables

The specific inputs delivered depend on the service provided. Examples include:

- Requirements Catalogues
- Process Maps and Use Cases
- Conceptual, logical and physical data models
- Model generated software implementation artefacts (e.g. database and message schemas)
- Enterprise Architecture overviews
- Architecture Definition and Requirements documents
- Solution and Integration Designs
- Implementation Roadmaps
- Interface Catalogues
- Detailed interface specifications

3 Service operation

3.1 On-boarding process

Unless stated otherwise in the PO, we will aim to on-board the necessary specialist(s) and initiate the service within 7 working days of receiving the PO. To facilitate this, Applied Informatics will assist the client with completing the PO (if requested).

3.2 Service levels

3.2.1 Service availability

- Office hours: 09:00 – 17:00 Monday to Friday excluding national holidays.
- Specialist hours:
    - Working day: 8 hours exclusive of travel and lunch.
    - Working week: Monday to Friday excluding national holidays.

3.2.2 Service performance

- Service Account Manager will respond to all service enquiries and requests within 24 hours.
- Service Account Manager will arrange regular meetings throughout the duration of the project to monitor performance, ensure the client's needs are being met and resolve any issues.
- In the unlikely event that any part of the performance of the service is deemed unsatisfactory, Applied Informatics will:
    - agree with the client a timeframe of not more than 72 hours to resolve the issue;
    - not charge the client for the part of the service deemed unsatisfactory from the time of notification until the issue is resolved to the client's satisfaction.
- Applied Informatics will provide laptops needed for specialists to undertake their work unless use of the client's own equipment is mandated for reasons of security or because of constraints on being able to access the client's data externally.

3.2.3 Assumptions

Providing and operating this service to the client's full satisfaction is based on the following assumptions.

- Client provides a full and clear description of the required service(s) required.
- Client and Applied Informatics agree delivery timelines of requested services.
- Client responds promptly to any requests for clarification or further information.
- Service Account Manager is notified immediately the client becomes aware of any issues concerning service performance that the specialist has not been able to resolve.

3.3 Knowledge transfer

We are keen to assist clients in developing their own technical capabilities by upskilling their own staff and in-house teams where they have the capacity to do so. We will therefore be pleased to include knowledge transfer in the PO as part of the services that the specialist will provide.

If required, the Service Account Manager will work with the client to agree a knowledge transfer plan. This may range from a hand-over workshop prior to off-boarding to more comprehensive knowledge transfer such as mentoring staff throughout the specialist's period of the engagement; on-the-job training (OJT) or coaching; or assessed competency based training (CBT).

3.4 Off-boarding process

Off-boarding requirements, such as hand-over or ongoing support, may be included within the PO as part of the specified services to be provided by the specialist. If required, the Service Account Manager will work with the client to agree an exit plan, setting out the scope of the off-board requirements and timescale for meeting them in more detail.

4 Service pricing, ordering and invoicing

4.1 Service pricing

The service can be provided on time and materials basis or delivered as a fixed price package of work. See pricing document for indicative day rates of specialists.

4.2 Service ordering

Service ordering follows the G-Cloud framework contract process. The service and specialists we will provide will be detailed in the PO included within the Call-Off contract both parties will sign.

The PO will also provide the opportunity for the client to tailor the service to their specific needs and project approach, such as requesting provision of specified deliverables or additional specialist resources to support delivery.

4.3 Service invoicing

We will accurately record the time and activities undertaken by our technical specialists.

Subject to any variations of payment terms set out in the PO, clients are required to review and approve timesheets at the end of each calendar month. We will invoice and seek payment according to the terms of the call-off contract.

We can issue invoices by email, via any suitable online payments system or by post. We request payment by BACS within 30 days of the date of the invoice.

5 Service termination

Our terms and conditions provide termination by either party. Please see a copy of our Additional G-Cloud Terms and Conditions for full details.

6 Further information

For more information about this or any of our G-Cloud services, please email: enquiries@applied-informatics.com and include the following information:

- Name of service(s) in which you are interested.
- Your name, position and contact details.
- Name of your organisation.
- Brief description of your business needs.
- Indicative timescales for delivery the work.