
**AIM Computing Ltd**

*embedding digital intelligence into your software solutions*

# G-Cloud

# Service Definition

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# 1. AIM Computing Overview

AIM Computing provides software development, testing, support and DevOps services for web, windows, mobile and cloud-based applications using agile and lean methodologies. We also provide a range of hosting services on the Microsoft Azure cloud platform.

We specialise in providing solutions based on Microsoft technologies but can also provide services and consultants for open source technologies, Oracle, Centura/Gupta, WordPress, PHP, MySQL, Python and ESRI GIS services.

We provide consultancy services and highly skilled and experienced digital consultants such as Digital Programme Managers, Digital Delivery Managers, Scrum Masters, Technical Architects, Agile Business Analysts, manual and automation Testers and Developers.

Our company vision is to provide our clients not merely with traditional software solutions but with software solutions supported by AIaaS (Artificial Intelligence as a Service) that put digital intelligence into their software solutions using the latest cutting edge Artificial Intelligence and Learning Machines technologies on the market, driving efficiencies, lowering total costs of ownership and allowing their employees to work smarter.

AIM computing can provide the following services:

1) A cost-effective solution to business growth as demand increases or decreases.
2) A flexible and highly skilled workforce that can scale up and down as needed by the client.
3) The ability to leverage technical knowledge and know-how as and when needed for specific business requirements from experienced industry experts from AIM's technical network.
4) Services such as application support, development, cloud infrastructure, cloud services, could hosting, enterprise and technical architecture, testing, penetration testing and BI analytical reporting.

# 2. AIM Computing Service Offering

## 2.1 Scalable Workforce

AIM will provide access to a **flexible and highly technically skilled workforce** that can scale up and down as needed by the client.

AIM's most important company value is to **work in partnership with clients** by embedding AIM resources with their clients' business teams to promote the same culture and values of their clients in all AIM employees. This type of engagement promotes unity and contributes to the success of the services provided.

AIM recommends to its clients a core team to ensure that the required service levels of support are met. The core team will **retain business knowledge and offer continuity** for application support services as demand fluctuates.

AIM also offers the **ability to scale up resources when demand increases**. Resources can be scaled up for a minimum period of 4 weeks at a time. This allows clients to only pay for the services they need as demand increases. Once the work has been completed these additional resources will be released from the client's project negating the need for the client to fund resources when there is no work to perform.

The AIM core team will be composed of a fixed minimum set of resources that is required to support the scope of services for the client. As demand increases in each tier (i.e. user research and design, product development, database development and testing) the client can scale up resources in any tier to meet the demand and thus having access to an extended team. This approach allows flexibility to increase resources in all tiers or simply in the tier where there is a need to increases capacity.

The added value of this service is that as demand increases the extended AIM teams are trained to work on the client's applications and once completed, although no longer resourced and financed by the client, are returned to the AIM resource pool for use in future demand. Consequently, the client's business knowledge is retained by AIM employees and leveraged next time the demand is increased by re-using these resources and **minimising hand-over periods** which in turn will offer a better cost-effective solution to the client.

## 2.2 Technical Expertise from Industry Experts

AIM will provide the client with the ability to leverage technical knowledge and know-how as and when needed for specific business requirements from a network of experienced industry experts. A realm of technical know-how and soft skills based on solid experience with other clients in the industry is available in the following areas:

- User research
- User design

- Enterprise architecture
- Technical architecture

- Development design patterns
- Development techniques (i.e. TDD, BDD, etc...)
- DevOps practices and tools (such as automation, continuous integration, micoservices, monitoring and logging)

- System Testing
- Load Testing
- Penetration Testing

- Cloud based services and development, system testing, load testing and user testing environments
- Mobile solutions
- Angular
- Oracle and SQL Server
- ASP .Net, .NET Core 2
- Entity Framework, Entity Framework Core, C#
- Microsoft Dynamics CRM 365
- BI design and Reporting, Power BI

## 2.3 Cost-Effective Solution as Demand Increases or Decreases

AIM will provide a cost-effective solution to the client's business growth as demand increases or decreases. The client will only need to finance resources for a small core team to ensure business continuity and will be able to increase, for variable periods of time, resources to meet urgent user needs.

AIM will also be able to offer resources, as part of an extended team, on a short-term basis for activities such as:

- Proof of concept for new technologies to meet new user needs
- Technology upgrades for existing legacy systems
- Quality improvements for applications by the increase of automation testing
- DevOps automaton of builds for continuous integration and releases of software into various environments

## 2.4 Service Offering for the Entire Product Lifecycle

Services such as application support, development, architecture, cloud infrastructure, cloud solutions, enterprise and technical architecture, testing, penetration testing and BI analytical services are all available from the AIM product lifecycle service offering.

AIM offers bespoke independent activities from bug fixes to the development of entire new solutions.

AIM will also work with the client on a retirement/decommissioning strategy for end of life products so that they are archived and gracefully retired from the LIVE environment.

When retiring a service AIM will:

1. Clearly communicate to users (that use the service directly or through APIs) the date when the system will retire, the reasons why the service is retiring and, if available, provide information about any replacement service that can be used.
2. Clearly communicate to users what will happen with their data.
3. Clearly communicate to users any changes to their personal data or transfer of their personal data and the rights they have under the client's data protection policy and GDPR regulations.
4. Archive the data in accordance with the client's data archiving and retention strategy.
5. Remove any automation builds and releases from TFS/Azure DevOps and archive the source code in accordance with the client's standards.
6. If the service is accessed through the web then plans will be put in place to redirect traffic to the new service or to a page that will indicate that the service has been permanently retired.

## 2.5 Client's Application Support Transition to AIM

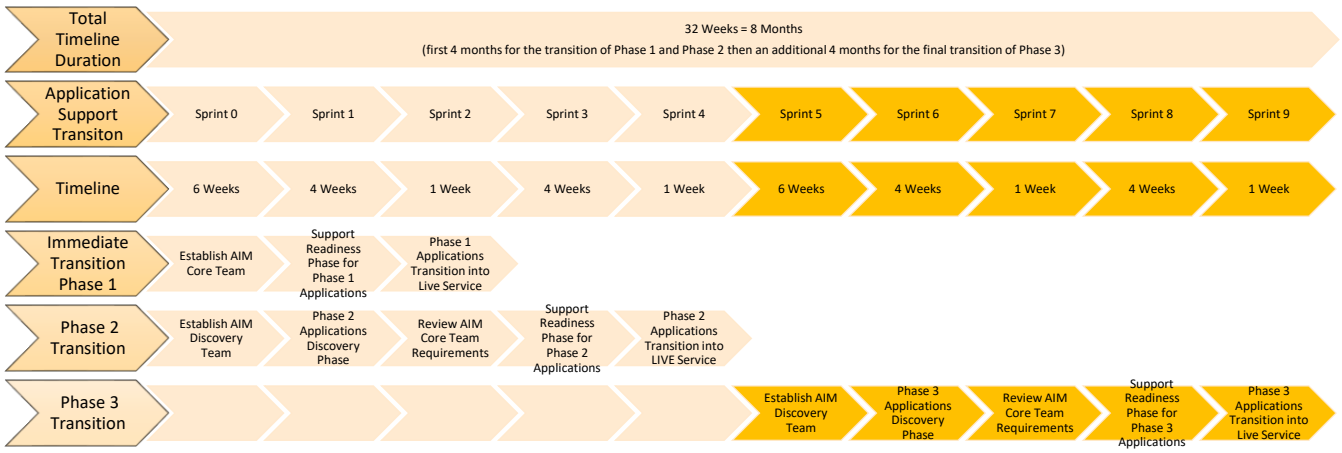
AIM is experienced in working with public sector bodies and has a good knowledge of GDS standards and GDS phases for agile delivery.

Applications that are transitioned to support will go through a discovery phase before transitioning into LIVE support (i.e. Discovery, Alpha, Beta and LIVE).

The output of the discovery phase will be:

1) Documentation of the system including high level business requirements.
2) Documentation of the business process associated with the system.
3) Technical specifications including interfaces, technology stack, component diagrams and interaction diagrams.
4) Documentation on the code location (including branch strategy), the environments associated to the system and the path to LIVE.
5) Successful setup of the development machines with the system running in the development environment.
6) Code analysis documentation, including dependencies, 3rd part components and diagrams of components that are used in the system.

The figure below illustrates an example of how a client's portfolio of applications could be transitioned to AIM. Depending on the number of applications AIM will use a phased approach of onboarding applications into support rather than a big bang approach which would take much longer to implement.




### 3.2.1 Immediate Transition Phase 1

The objective of this phase is to put in place a core team to immediately take over Phase 1 applications into support with minimal handover from the client. This will apply to either less complicated architectural solutions or could be prioritised based on the need of the client.

The timescales for Phase 1 are generally as follows:

- **Establish AIM Core Team**: a maximum period of 6 weeks from the start of the engagement and access to the relevant source code and environments.
- **Support Readiness Phase for Phase 1 Applications**: 4 weeks.
- **Phase 1 Applications Transition into Live Service**: 1 week.

### 3.2.2 Phase 2 Transition

The objective of this phase is to document and understand the applications that need to be transitioned to support as a next tranche so that AIM can determine the minimum number of developers required to support them. This will involve investigating the complexity of the applications, their technology and skillsets required as well as examining the list of known issues.

The timescales for Phase 2 are typically as follows and will be started in parallel with Phase 1:

- **Establish AIM Discovery Team**: a maximum period of 6 weeks from the start of the engagement and access to the relevant source code and environments. This activity will start in parallel with the *Establish AIM Core Team* activity in Phase 1.
- **Phase 2 Applications Discovery Phase**: 4 weeks.
- **Review AIM Core Team Requirements**: 1 week. Once this phase has been completed AIM will jointly agree with the client on the number of additional resources needed to complement the Core Team to support these systems.
- **Support Readiness Phase for Phase 2 Applications**: 4 weeks.
- **Phase 2 Applications Transition into LIVE Service**: 1 week.

### 3.2.3 Phase 3 Transition

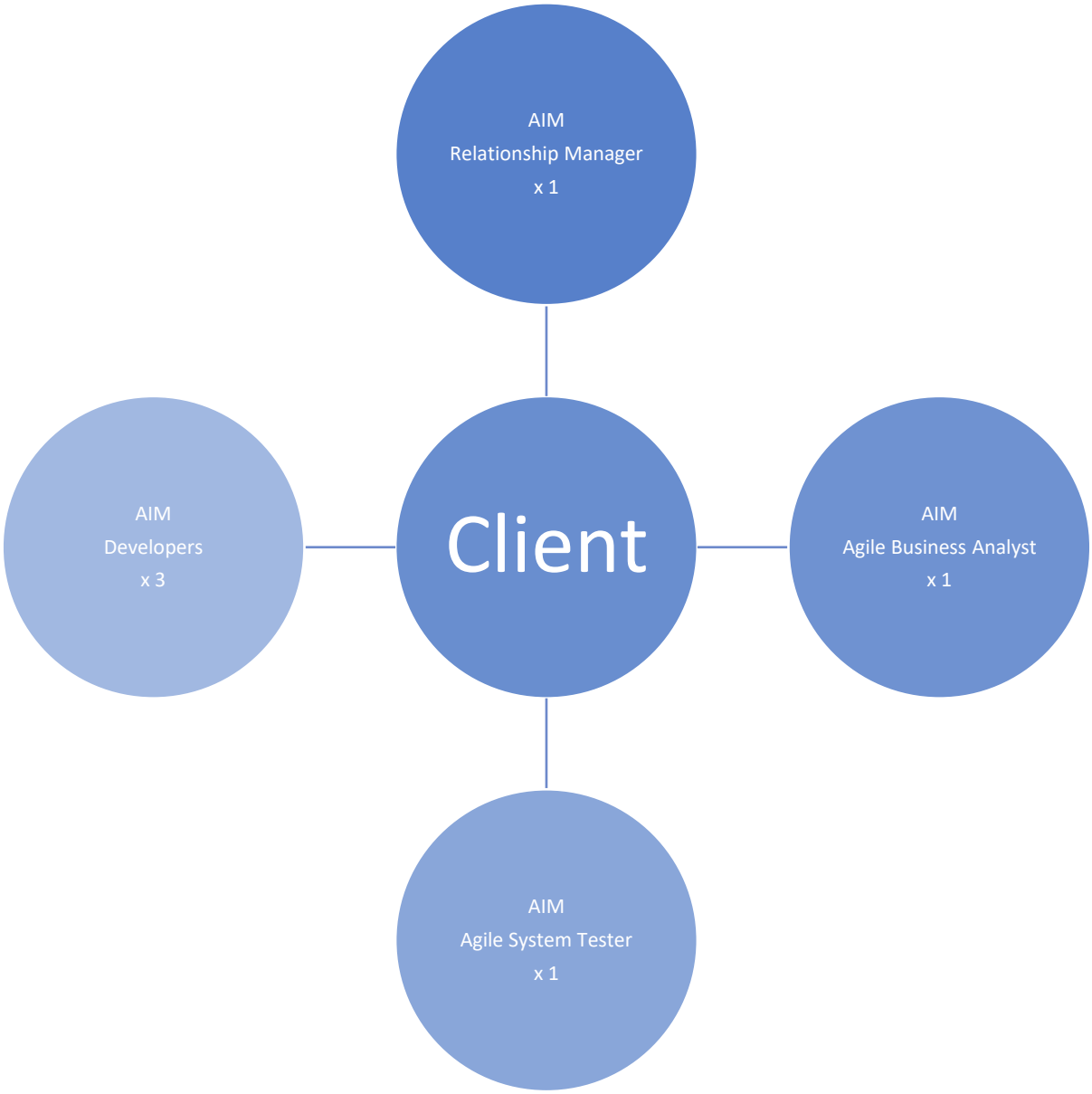
The objective of this phase is to finalise the transitions of the remaining systems into support.

The timescales for Phase 3 are generally as follows:

- **Establish AIM Discovery Team**: a maximum period of 6 weeks from the start of Phase 3. This activity may be necessary if the skillsets required for this phase are fundamentally different from Phase 1 and 2 and specialised resources need to be brought on board.
- **Phase 3 Applications Discovery Phase**: 4 weeks.
- **Review AIM Core Team Requirements**: 1 week. Once this phase has been completed AIM will jointly agree with the client on the number of additional resources needed to complement the Core Team to support these systems.
- **Support Readiness Phase for Phase 3 Applications**: 4 weeks.
- **Phase 3 Applications Transition into Live Service**: 1 week.

## 2.6 Application Support Team Structure

The following illustrates what the team structure could look like for the immediate transition phase (i.e. Phase 1) of the engagement:




Please note that the above is for illustration purposes only and will vary from client to client and is solely meant to demonstrate the approach AIM would take if engaged to support cloud applications.

The team will follow the Scrum agile methodology in respect of delivering the services. Daily stand-ups will be held to assess progress on work relating to each member of the team, frequent *Show and Tell* sessions will be scheduled with the

business users to demonstrate progress of the pre-agreed change requests that are part of the sprint (each sprint will be 4 weeks duration).

The team will have a monthly sprint planning session, following the prioritisation by the business of the changes required for that month. There will be one monthly scheduled release for changes into LIVE. However, emergency changes will be scheduled into production during that month at a pre-agreed date and time with the business users.

**AIM Relationship Manager**: AIM recommends that this role is performed by the same individual due to the small team size and to reduce the costs of the engagement. As the portfolio of supported applications grow and potentially the team size then it may be mutually beneficial to split this role into two under the responsibility of two different individuals (i.e. a Relationship Manager and a Delivery Manager). This, however, can be agreed as and when there is a demand from the client.

**AIM Agile Business Analyst**: This role will be pivotal in capturing the requirements from the business which will include emergency changes, bugs, small change requests and potentially requirements that may be categorised as small projects. The responsibility of the business analyst is to ensure that all requests from the business are fully articulated and entered in TFS/Azure DevOps so that the team can understand them. All changes in TFS/Azure DevOps will be prioritised during the Product Backlog Refinement meetings with the Product Owner unless they are emergency changes in which case these will be escalated to the Relationship Manager to approve or reject in negotiation with the business. The business analyst will not have the authority to approve or reject any changes.

**AIM Agile System Tester**: The role of the systems tester will be to test all approved emergency changes, bugs, small change requests and small projects. The Tester will be responsible for 1) ensuring that all manual and automated scripts are entered in TFS/Azure DevOps and that they are re-usable 2) executing these test scripts 3) ensuring that regression testing is performed on applications before they go LIVE and 4) confidence testing LIVE releases in production to ensure that the system was deployed successfully.

**AIM Developers**: The developers will be responsible for delivering the PBIs and bugs that have been assigned to them. Developers will also ensure that any required unit tests are created, or updated if they already exist, to cater for the functionality they are working on. Developers will also have responsibility for ensuring that the source code is commented and checked-in to TFS/Azure DevOps.

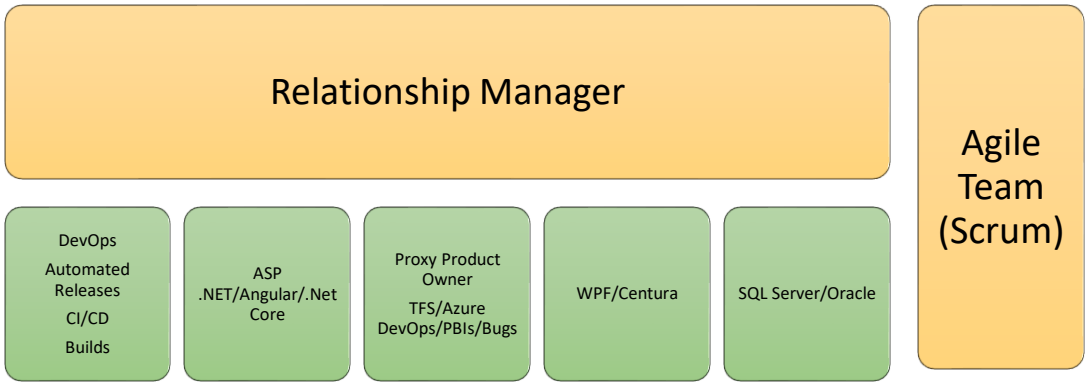
The skillsets in the core team could be as follows (subject to the agreement from the client):

- 1 Relationship Manager: Agile (Scrum), technically savvy in Microsoft and Open Source technologies, good stakeholder management experience, collaborations skills, able to coach the team, proactively manages dependencies, able to manage risk, good negotiator and good English written and oral communication skills.
- 1 Agile Business Analyst: Agile (Scrum), facilitates collaboration and lead effective communication with all stakeholders to support design, build and

delivery to meet the user needs, good English written and oral communication skills.

- 1 Agile Systems Tester: Agile (Scrum), experience in manual and automation testing, good English written and oral communication skills.
- 3 Developers: Agile (Scrum), Angular, MVC, ASP.NET, .Net Core, PL/SQL, Oracle, WPF/Centura, SQL Server, TFS, Azure DevOps, DevOps practices and tools (such as automation, continuous integration, micoservices, monitoring and logging) and good English written and oral communication skills.

The following diagram illustrates the skills matrix of the team:




For illustration purposes, in addition to the above core team requirements the following resources may also be needed for the Discovery work for Phase 2 and Phase 3 transitions:

- **Phase 2 Discovery Team**: 3 developers. The skillsets for these developers will be Agile (Scrum), Angular, MVC, ASP.NET, Oracle Forms, PL/SQL, Oracle, SQL Server, TFS, DevOps practices and tools (such as automation, continuous integration, micoservices, monitoring and logging) and good English written and oral communication skills.
- **Phase 3 Discovery Team**: 2 developers. The skillsets for these resources will be Agile (Scrum), Microsoft Dynamics 365 CRM with Forms development experience, BI, DWH, ETL, Oracle, SQL Server, TFS, Azure DevOps, DevOps practices and tools (such as automation, continuous integration, micoservices, monitoring and logging) and good English written and oral communication skills.

The final amount of resources for Phase 2 and Phase 3 will be respectfully identified and pre-agreed in advance with the client during the *Review AIM Core Team Requirements* stage before proceeding to the next stage of each of the phases.

## 2.7 Application Support Process

The following describes how AIM will manage emergency live issues and change requests, as well as, how feedback is obtained from users to improve the service provided on a continuous basis.

Operational hours for support will be Monday-Friday from 09:00 to 17:00 (excluding UK bank holidays).

### 3.4.1 Emergency Changes

Emergency changes are categorised as live issues that require immediate attention because they ae hindering business critical activities in the system.

The client will identify a set of business stakeholders, per application, that will have the authority to raise an emergency change.

The following SLA's will be offered as part of the service for emergency changes:

Severity 1: Response time within 2 working hours of the reported issue. We will endeavour to provide a resolution or workaround to the reported problem within 16 working hours.

Severity 2, Severity 3 and Severity 4 reported items will be implemented as part of the change request process.

The definitions for these severities are as follows:

- Severity 1 (Critical Emergency): Critical issue affecting the use of the system (i.e. a page loads with an error).
- Severity 2 (High): Issue that has a major effect on the system but can be overcome through a work around (i.e. unable to print a printer friendly page through the application link but can print using the browser print facility).
- Severity 3 (Normal): Issues that affect minor feature in the system (i.e. unable to use a part of the system that is rarely used by the users such as the maintenance of a VAT rate).
- Severity 4 (Low): A very low impact on the system (i.e. the wrong font is used for a label).

### 3.4.2 Product Backlog Refinement Meetings and Change Management

The role of the Product Backlog Refinement Meetings is to agree the priorities of the work the team need to deliver and the timescales for completing the work. It will not be possible to accommodate all requests at each prioritisation meeting and therefore the AIM Relationship Manager will chair the meeting and negotiate with

stakeholders the priority of the changes they want in the next release and the associated timescales.

Regular non-urgent small changes will be released once a month which will allow to schedule business user testing (i.e. UAT) in advance and block business users' time to perform testing. The monthly release may affect one or more systems depending on what features have been agreed to be released. In this instance, all users affected will receive notification of their systems' unavailability and planned downtime in advance.

The core team will be able to manage the majority of the changes and their time will be split between developing features, fixing bugs and enhancing the quality and supportability of the applications they are responsible to maintain. Consequently, 50% of their time will be made available for bug fixes (severity 2, severity 3 and severity 4 items) and change requests.

The remaining 50% of their time will be utilised as following:

- Analysing and fixing emergency changes (severity 1 items).
- Further knowledge improvements of the applications they support.
- Documentation for development support and user guides.
- Improving the code coverage through the creation of unit tests.
- Proactive testing to identify any hidden bugs.
- Automation of UI testing where appropriate.
- Identifying opportunities to improve the performance of the application.
- Refactoring the code where necessary to improve supportability.
- Identifying opportunities for and implementing automation where possible.
- Implementing technical enhancements.
- Setting up additional environments for development, testing, and UAT.
- Migrating other services to the cloud (i.e. TFS on premises to Azure DevOps, development and testing environments, etc…).
- Providing user training sessions as and when required on specific areas of a system.

### 3.4.3 User Experience Feedback

As part of our service offering AIM strives to continuously improve the services provided based on on-going user feedback.

Following a pre-selectable release, a short survey will be provided to the customer who will have the option to rate the service and provide their feedback.

The survey will be in a simple format that will not take more than 30 seconds to complete and will be structured as follows:

1) **Release Reference**: The system will automatically populate this field so that the feedback given can be mapped back to the change(s) implemented as part of the release.

2) **Satisfaction Rating**: a simple rating to indicate the user satisfaction about the service, change and general experience with the team. The rating will be presented in the form of a number and a description to indicate its meaning as follows:

    4: Excellent and outstanding service provided.

    3: A good and acceptable service provided.

    2: A good service provided but could benefit from some minor improvements.

    1: The service provided was unacceptable and requires immediate attention.

3) **Comments**: This section will allow the user to provide further information on the reasons for the given rating and in the case of a poor rating the user will be able to indicate the areas that they think needs improving.

Any feedback that has a rating of 1 or 2 will be escalated to the Relationship Manager for immediate investigation of the root cause of the problem. The Relationship Manager will be responsible for ensuring that the reported problem is fully understood, that remedial steps are put in place to avoid any such reoccurrences and that the user is satisfied with the agreed actions going forward to prevent it from re-occurring.

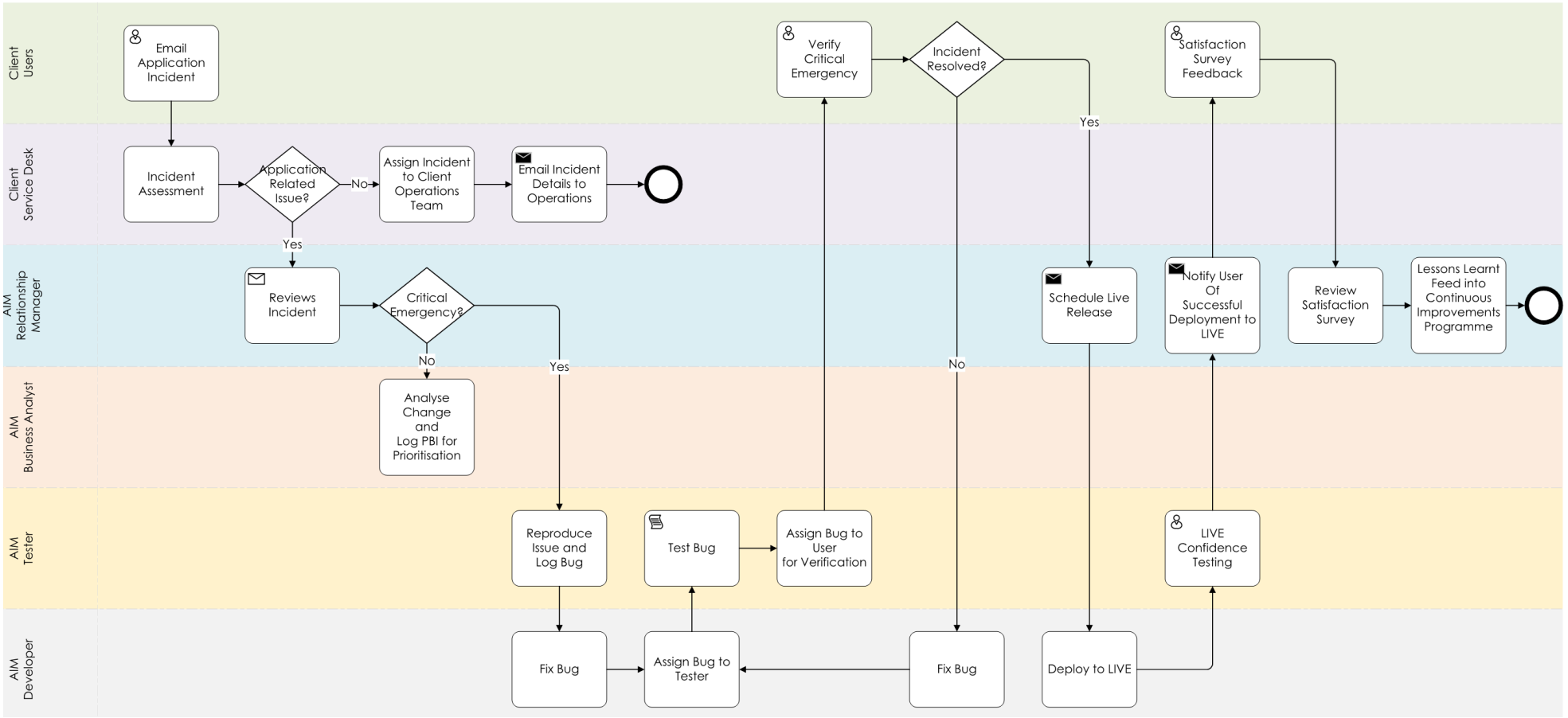
AIM will have monthly service review meetings with the client management team to monitor the service levels and user satisfaction. A monthly service report will be provided to the client detailing the results of the user satisfaction feedback for the services provided and actions taken to address any poor feedback.

### 3.4.4 Logging Emergency Changes and Change Requests

All emergency changes and change requests will be logged in TFS/Azure DevOps (depending on the client's choice) and allocated to the Relationship Manager. Each item entered in TFS/Azure DevOps will be categorised as either a bug or PBI (for change requests).

When entering a bug, the steps to reproduce the issue and associated screenshots of the error should be entered and the bug should be allocated a severity. Only emergency changes should be allocated to a severity 1 by designated business users.

Change requests should be entered as a PBI with the associated business priority. All change requests will be reviewed and prioritised into a release during the Product backlog Refinement meetings with the Product Owner. The following process flow illustrates how the client will interact with the AIM support team:


Client Users
Client Service Desk
AIM Relationship Manager
AIM Business Analyst
AIM Tester
AIM Developer
Email Application Incident
Incident Assessment
Application Related Issue?
No
Assign Incident to Client Operations Team
Email Incident Details to Operations
Yes
Reviews Incident
Critical Emergency?
No
Yes
Analyse Change and Log PBI for Prioritisation
Reproduce Issue and Log Bug
Test Bug
Assign Bug to User for Verification
Fix Bug
Assign Bug to Tester
Verify Critical Emergency
Incident Resolved?
Yes
No
Fix Bug
Schedule Live Release
Deploy to LIVE
Satisfaction Survey Feedback
Notify User Of Successful Deployment to LIVE
LIVE Confidence Testing
Review Satisfaction Survey
Lessons Learnt Feed into Continuous Improvements Programme

# 3. Service Provider and Client Responsibilities

## 3.1 Service Provider Responsibilities

AIM the service provider will:

1) Make a recommendation on the hardware and software requirements that the client needs to purchase, at their own cost, and provide to AIM resources so that they can support the portfolio of applications in scope. Ideally, AIM will like to own the entire service provision and take responsibility for the source code and environments so that they are hosted by AIM removing the need for AIM to have to use the client's equipment but that is down to the client to decide the approach.

2) Provide regular updates to the client management team about progress on emergency changes, releases, small projects and any risks or issues that would impact the deadlines for delivery.

3) Provide the services for this engagement remotely and will only attend the client offices for meetings that have been pre-agreed in advance as and when required.

4) Deliver the services with no supervision and will respond to any request from the client within reasonable timescales.

5) AIM will not be responsible for any data loss, data corruption or viruses that may be found on the client's cloud environments as the result of software installed on the client's computers.

6) AIM will not be responsible for any data loss, corruption or viruses that may infect documents or any other assets (i.e. emails, images, pdfs, word documents, spreadsheets) installed on cloud storage or any other devices owned by the Client.

7) AIM will also provide as part of the service the option for the client to have all their environments, source code, documentation and system assets hosted on the AIM's cloud infrastructure. If the client opts for this option a transition plan will be pre-agreed in advance of what applications are suitable for transition. This option will also remove all the client's overhead of managing these services and will be at no extra cost to the client.

## 3.2 Client Responsibilities

The client will:

1) Escalate any issues with the service promptly by notifying AIM of the details by emailing: support@aimcomputing.co.uk

2) Provide each AIM resource with a client's pre-configured laptop with the required software and licenses to fully operate the service (if AIM are unable to use their own devices due to the client's security policies).

3) Provide, if required, each AIM resource a key fob and required access via a secured VPN to their environments needed to provide the service.

4) Facilitate all the necessary access to business users, digital services teams, systems, environments, documentations and source code required to manage the service.

# 4. Why Choose AIM Computing?

AIM has a good relationship with various public sector bodies and business stakeholders and understands the GDS model, the challenges faced by end users and how these can be addressed.

AIM provides a range of specialised services for various business demands and offers a flexible model that is cost effective. The service offering provides a solution to the client's business demands in term of flexibility of increasing resources and decreasing them as demand fluctuates and provides a value for money service with a dedicated and passionate team willing to work not as a supplier but as a partner with the client.

As new technologies emerge, and the client retire their legacy systems, AIM will review the required skills matrix of the core team and will phase out resources which skills are no longer needed by the client and will replace them with new resources that have the right skills needed to support the clients portfolio of applications. This skills upgrade process will incur no additional costs to the client and AIM will take the necessary steps to train any new team members as part of our onboarding process.