Birmingham Commonwealth Games 2022 Systems

This document contains diagrams describing the architecture for the Birmingham Commonwealth Games 2022. There are 5 diagrams showing the following:

1. The systems architecture expected at 31st December 2020, this is titled “As-Is Architecture”.
2. The systems architecture expected at games time 28th July 2022, this is titled “To-Be Architecture”.
3. The architecture of the in-house (SharePoint) developed applications as expected at 31st December 2020, this is titled “In-House Development (As-Is)”.
4. The architecture of the in-house (SharePoint) developed applications at delivery mid-point, this is titled “In-House Development (Transition)”.
5. The architecture of the in-house (SharePoint) developed applications at games time 28th July 2022, this is titled “In-House Development (To-Be)”.

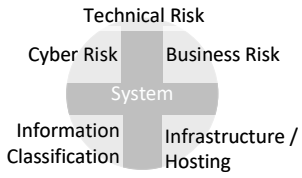
The first 2 diagrams have an extensive use of different shapes, colours and icons, they are as follows:

Each system is represented as a circle, there are differing colours depending on the system classification. Each classification has 2 shades of that colour – the lighter shade is used for systems that are expected but not yet delivered, the deeper shade of colour is used to represent systems that have already been delivered and are live.

System Classification Key

- B2022 GMS System
- B2022 GMS System (Not yet delivered)
- B2022 Enterprise Solutions
- B2022 Enterprise Solutions (Not yet delivered)
- External (Non-B2022) Systems
- B2022 Digital System
- B2022 Digital System (Not yet delivered)
- B2022 TEC System
- B2022 TEC System (Not yet delivered)
- B2022 Event Management System (Not yet delivered)
- B2022 VTS System (Not yet delivered)

Icons are overlaid onto the systems, each system can have a maximum of 5 icons that are located on the circles as follows:



The top half of the circle contains icons representing risk that has been identified against the system. The Technical Risk is a combined score of a number of application, infrastructure, people and delivery risks associated with the system. All these risks are identified in the Technology Standards that are completed for each system during the tender process and are recorded in the architecture Technical Services spreadsheet. Each risk has been scored as 1 where the risk exists and 0 where not. The total technical risk is an addition of these risk numbers, MEDIUM Risk is above 1, identified on the diagram by the icon TEC and HIGH risk is above 6, identified on the diagrams by the icon TEC. This risk colouring can also be found on the Risk Heat Map in the Technical Services spreadsheet which has been colour formatted from green to red according to percentile.

The risks are:

- New Technology
- New Development
- Historical defect trend
- Tight Delivery Schedule
- Skills Knowledge & Experience
- Complexity
- External dependencies & interfaces
- Capacity
- Performance
- Availability
- Interfaces
- System Recovery
- Deployment
- Monitoring
- Operations and Support

The Business Impact Assessment has been calculated from The business impact of a complete or partial failure of the system according to whether the incident affects confidentiality, integrity or availability of the system or data. The impact is assessed as None, Low, Medium, High or Critical and these are also identified on the individual systems Technical Standards document during tender and recorded in the Technical Services spreadsheet. Each impact is scored as 0 (None) to 4 (Critical) and the BIA identified on the diagram is a total of these scores where MEDIUM impact is above 5, identified on the diagram by the icon BIA and HIGH impact is above 9, identified on the diagrams by the icon BIA. This risk colouring can also be found on the Risk Heat Map in the Technical Services spreadsheet which has been colour formatted from green to red according to percentile.

Cyber security has been individually identified with the data from the Technical Standards documentation, this is identified by the following icon

The bottom left quadrant of the system is used to display the information classification of the data contained in that system. The classifications are as per the UK Government’s Information Classification and uses the following icons:

- Information Classification: PUBLIC
- Information Classification: OFFICIAL
- Information Classification: OFFICIAL-SENSITIVE

The bottom right quadrant of the system is used to display hosting information of the system. The hosting provider is represented using the Azure, AWS logos where relevant or a plain cloud icon for a different cloud hosting provider. The location of the data centre’s used by the hosting providers are shown using the UK flag, EU flag or a globe for hosting elsewhere in the world.

Hosting Infrastructure Key

- System is hosted in Azure
- System is hosted in AWS
- System is hosted by other cloud provider
- Infrastructure based in Other
- Infrastructure based in UK
- Infrastructure based in EU

Birmingham Commonwealth Games 2022 Systems: AS-IS Architecture

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- B2022 Digital System (Not yet delivered)
- B2022 TEC System
- B2022 TEC System (Not yet delivered)
- B2022 Event Management System
- B2022 Event Management System (Not yet delivered)
- B2022 VTS System (Not yet delivered)
- B2022 RTS System

Information Classification Key

- Information Classification: PUBLIC
- Information Classification: OFFICIAL
- Information Classification: OFFICIAL-SENSITIVE

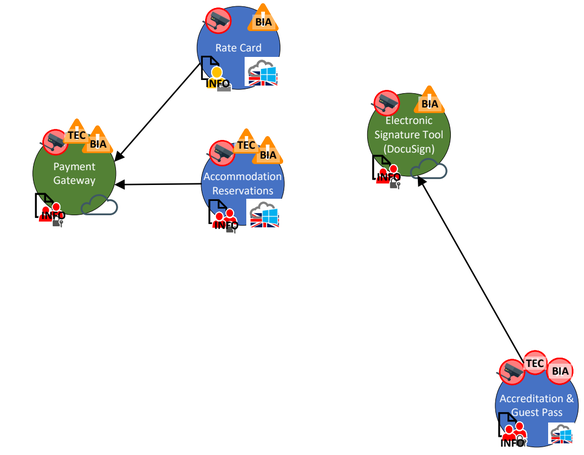
Hosting Infrastructure Key

- System is hosted in Azure
- System is hosted in AWS
- System is hosted by other cloud provider
- Infrastructure based in Other
- Infrastructure based in UK
- Infrastructure based in EU
- System is on-premise

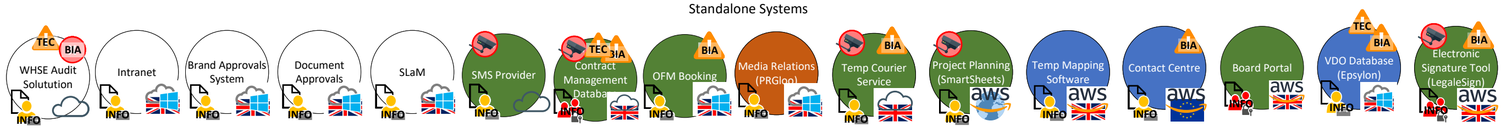
Solution Risk Analysis Key

- BIA Analysis: HIGH
- BIA Analysis: MEDIUM
- Technical Risk: HIGH
- Technical Risk: Medium
- Cyber Security Risk: HIGH

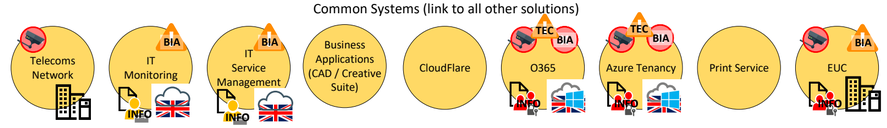
Technical Risk / Cyber Risk / Business Risk / System / Information Classification / Infrastructure / Hosting



Standalone Systems



Common Systems (link to all other solutions)



B2022 Digital Systems – In House Development (As-Is)

Microsoft Azure

Microsoft Tenant: Birmingham2022.onmicrosoft.com

Domain: Birmingham2022.onmicrosoft.com

Domain: Birmingham2022.com

Domain: Festival2022.uk

federation

Microsoft Tenant: Sportfive

Domain: Festival2022.uk

Document Management

- Central Library
- Department & FA Sites

Extranet Sites

- FA Collaboration Extranet Sites
- Specific Purpose Extranet Sites

Apps

- Governance Approval Forms
- The Hub

SharePoint

Domain: Birmingham2022.com

The Intranet

Document Management

- Central Library
- Venue & Sports Sites
- Department & FA Sites

Extranet Sites

- FA Collaboration Extranet Sites
- Specific Purpose Extranet Sites

Apps

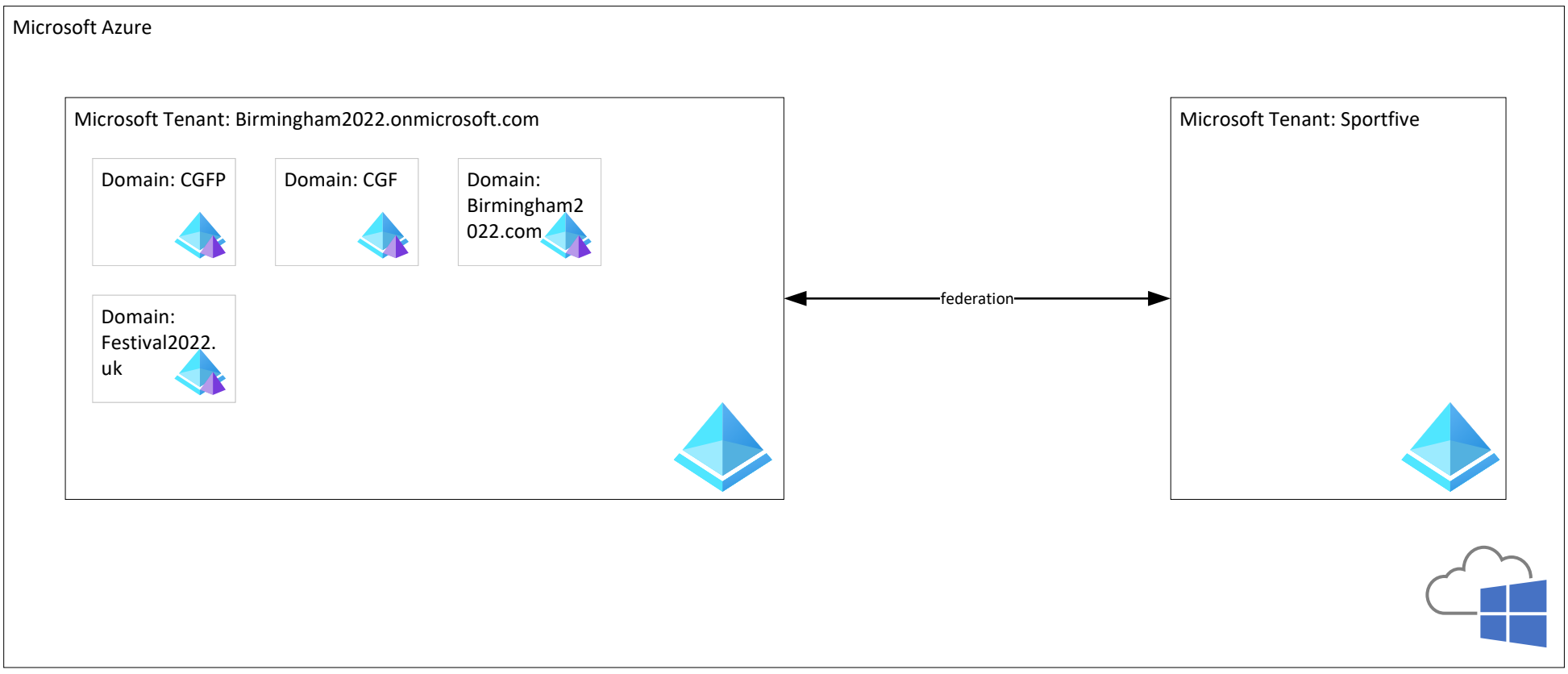
- SLaM
- OFM Booking (3rd Party App)
- Change Control Management
- Document Approvals
- Governance Approval Forms
- Venue Visit Mnagement
- The Hub

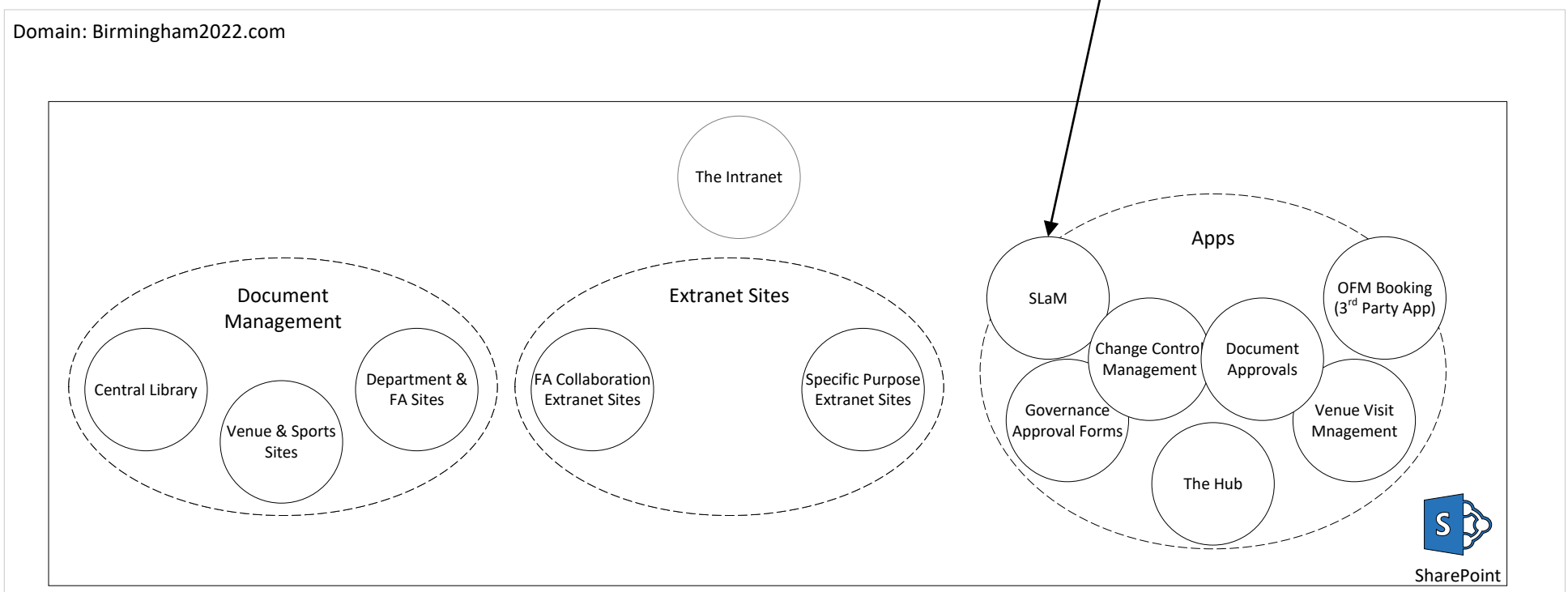
SharePoint

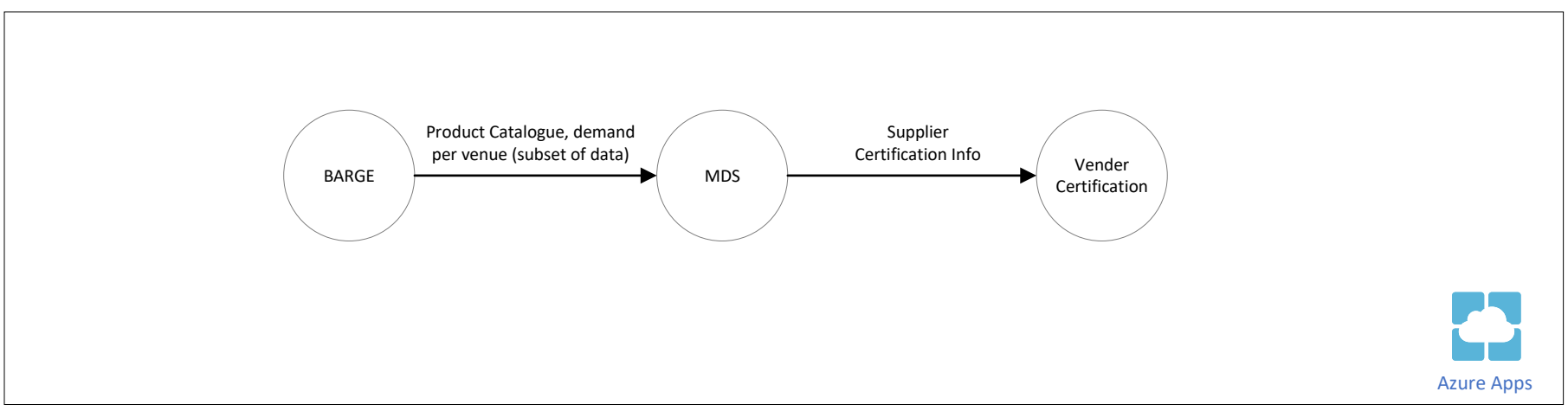
BARGE (In dev) → Product Catalogue, demand per venue (subset of data) → MDS (In dev) → Supplier Certification Info → Vender Certification

Azure Apps

B2022 Digital Systems – In House Development (Transition)







B2022 Digital Systems – In House Development (To-Be)

Microsoft Azure

Microsoft Tenant: CommonwealthSport.com

Domain: CGFP

Domain: CGF

Domain: Birmingham2022.com

Domain: *Future Host Cities*

Domain: Festival2022.uk

Microsoft Tenant: Sportfive

federation

Domain: Festival2022.uk

Document Management

Central Library

Department & FA Sites

Extranet Sites

FA Collaboration Extranet Sites

Specific Purpose Extranet Sites

Apps

Governance Approval Forms

The Hub

SharePoint

Domain: Birmingham2022.com

The Intranet

Document Management

Central Library

Venue & Sports Sites

Department & FA Sites

Extranet Sites

FA Collaboration Extranet Sites

Specific Purpose Extranet Sites

Apps

SLaM

Change Control Management

Document Approvals

OFM Booking (3rd Party App)

Governance Approval Forms

Venue Visit Mnagement

The Hub

SharePoint

BARGE

Product Catalogue, demand per venue (subset of data)

MDS

Supplier Certification Info

Vender Certification

Azure Apps