

Enterprise Architecture Collaboration Domain Roadmap

Technology Roadmaps

DOCUMENT CONTROL

Document Details

Document Owner	Tony Bright
Document Author	Nick Morgalla, Paul Gilbert
Current Version	1.1
Issue Date	7 th May 2008
Programme Reference	Enterprise Architecture
Project Reference	Enterprise Architecture Collaboration Domain

Revision History

DATE	VERSION	CHANGE DETAILS
2 nd May 2008	1.0	Initial Version
7 th May 2008	1.1	Updated after initial review

Distribution

DATE	VERSION	DISTRIBUTION
2 nd May 2008	1.0	Tony Bright, Kaila Munaweera and Phil Burnham for initial review
7 th May 2008	1.1	Enterprise Architecture Program Board

TABLE OF CONTENTS

1.0	Introduction	4	
1.1	Objectives.....	4	
2.0	Executive Summary	5	
2.1	Developing the Enterprise-wide Collaboration Strategy	5	
2.1.1	Implement Presence Management.....	5	
2.1.2	Develop Functional Needs for Internal & External Collaboration	6	
2.1.3	Gap Analysis	6	
2.1.4	Develop Shared Service Collaboration Platform	6	
2.1.5	Develop Workflow Needs	6	
2.2	Potential for Outsourcing.....	6	
3.0	Collaboration Domain Architecture Description	7	
3.1	British Council's Enterprise Architecture Approach.....	8	
3.2	Position of the Collaboration Domain within the overall Enterprise Architecture	9	
3.3	Capability Summary	10	
3.3.1	Collaborative Interaction Services	11	
4.0	Direction of Travel.....	11	
4.1	Business changes impacting the Collaboration Domain	11	
4.1.1	Maximising Efficiency	11	
4.1.2	Responding Effectively to the Business	11	
4.1.3	Leveraging Our Information Assets	12	
4.1.4	Increasing Business and IT Efficiency.....	12	
4.2	Technology opportunities	12	
4.2.1	Leveraging Microsoft capabilities	12	
4.2.2	Integration Platforms	13	
	Exploring the Options.....	13	
4.2.3	Mapping Business Change to the Collaboration Domain	13	
4.2.4	Mapping Technology Opportunities to the Collaboration Domain ..	14	
4.3	Summary of Benefits	15	
5.0	Detailed Description.....	16	
5.1	Logical Domain Model.....	16	
6.0	Making it Happen	17	
6.1	Technology Choices.....	17	
6.2	Key Organisation Processes	17	
6.3	Resources and Skills.....	17	
6.4	Provision Assumptions	17	
6.5	Milestones and Deadlines	18	
6.6	Domain Strategic Roadmap	18	
6.6.1	Step 1 - Presence Management.....	18	
6.6.2	Step 2 - Develop Functional Needs for Internal & External Collaboration ..	19	
6.6.3	Step 3 - Gap Analysis.....	19	
6.6.4	Step 4 - Continued Development of Shared Service Platform for Internal & External Collaboration	19	

	6.6.5 Step 5 - Develop functional workflow needs.....	19
7.0	Appendix 1 - Principles Guiding the Collaboration Domain	20
	7.1 Business Principles	20
	7.2 Functional Principles	20
	7.3 Technical Principles	20
	7.4 Implementation Principles	20
	7.5 Governance Principles	20

TABLE OF TABLES

Table 1 - Collaboration Domain Strategic Approaches.....	5
--	---

TABLE OF FIGURES

Figure 1 - British Council Enterprise Architecture Approach.....	8
Figure 2 - British Council Enterprise Architecture domains	9
Figure 3 - Collaboration Domain Service Model	10
Figure 4 - Collaborative Service Model.....	11
Figure 5 - Mapping Business Change to Domain Model	13
Figure 6 - Mapping Technology Opportunities to Domain Model.....	14
Figure 7 - Enterprise Architecture Benefits Matrix – Collaboration Domain.....	15
Figure 8 - Logical Collaboration Domain Model, Showing relationship to Application Domain	16
Figure 9 - Collaboration Domain Strategic Roadmap	18

1.0 Introduction

This document describes the target architecture roadmap for the Collaboration Domain. The Collaboration Domain consists of the systems that enable both internal and external collaboration and sharing of information, including Mail & Messaging, SharePoint Services, Enterprise Content Management and Video and Web based Conferencing facilities.

1.1 Objectives

The objectives of this document are:

- To provide a summary of the roadmap for the Collaboration Domain
- To communicate an understanding of the Collaboration Domain target architecture to stakeholders at an appropriate level of detail
- To position the Collaboration Domain within the overall British Council enterprise architecture and describe the capabilities covered by this domain
- To describe how the business direction and technology opportunities have shaped the target domain architecture
- To explore the options available to British Council for this domain
- To identify the major deadlines and milestones for the delivery of the capabilities provided by this domain
- To identify at a high level the resources and skills required to implement the capabilities
- To describe the Collaboration Domain roadmap

2.0 Executive Summary

Collaboration is something that individuals and groups **do** both within an enterprise and within its extended community; they perform collaborative activities and have a **style** of collaboration that may exist without ICT (information and communication technology) support.

While there has already been an investment in MOSS technology to support internal collaboration, there are opportunities to gain even greater benefits for the Council. The British Council must consider what styles of collaboration exist (or it wants to exist) both internally, with students, customers and partners and determine the functional requirements of those. Many of the functional needs will be common, and significant benefits derive from supporting these with common shared services.

There is considerable commonality and overlap between the collaboration and application domains, and both these domains share a common affinity with the data domain. It is important therefore that the collaboration domain roadmap is not considered in isolation, but in conjunction with these other domains.

The council has invested in both Microsoft technologies and supporting capabilities; consideration should be given to the principle¹ of 'good enough' with respect to platforms for delivering collaboration i.e. do we already have technology, people and process that meet the functional need or can be enhanced to do so?

2.1 Developing the Enterprise-wide Collaboration Strategy

Based on current understanding, a strategy based on adopting the following approaches is suggested:

Priority	Initiative	When	Key Benefits
High	Implement presence management (quick win)	By end of 2008	<ul style="list-style-type: none"> • Reduce IT costs² • Improve service quality • Increased business efficiency
High	Develop functional needs for collaboration both inside and outside the enterprise	By late 2008	<ul style="list-style-type: none"> • Provide informed design decisions • Avoid functional duplication
High	Develop Gap analysis from Microsoft Office SharePoint Server capabilities	By early 2009	<ul style="list-style-type: none"> • Identify areas where enhancement is required or divergence allowed
Medium	Continued development of shared service platform for internal & external collaboration	By mid 2010	<ul style="list-style-type: none"> • Leverage Microsoft investment • Cost effective service delivery • Increased business efficiency
Medium	Develop workflow functional needs	By end 2009	<ul style="list-style-type: none"> • Improved service quality • Increased business efficiency

Table 1 - Collaboration Domain Strategic Approaches

2.1.1 Implement Presence Management

Presence management can identify when a person is at a specific location, for example their desk, and thus prevent wasted time using an inappropriate contact mechanism. Although work that is more detailed needs to be done, indications are that presence management could be implemented relatively easily using Microsoft technologies that are available to the Council. This should be viewed as a quick win.

¹ Technical Principle 10, Solution Characteristics - see Appendix 1 - Principles Guiding the Collaboration Domain for full list of related principles

² By reducing the number of ineffective communications

2.1.2 Develop Functional Needs for Internal & External Collaboration

The next step is to develop a clear understanding of the requirements for both internal and external collaboration. This will require working closely with the businesses, also taking into account where collaboration requirements overlap with other initiatives such as OTP and the Internal Collaboration Project.

2.1.3 Gap Analysis

Once requirements have been clearly defined, a gap analysis of the existing collaboration solution, MOSS needs to take place. At this stage, it is not possible to say clearly whether MOSS can meet all the requirements of the British Council until further analysis work takes place. It may turn out that the best solution is a combination of components, however the key guiding principles of maximising re-use and value from existing solutions and technologies will of course apply.

2.1.4 Develop Shared Service Collaboration Platform

The development of the existing collaboration platform should continue on an ongoing basis, however the work described above should feed into the process at the appropriate time. One area that should be given consideration is the development of simple taxonomies to improve the use and re-use of information within the British Council. This may require a development project to be created in its own right.

2.1.5 Develop Workflow Needs

Though currently not indicated as having quite as high a priority, consideration should be given to workflow, and the global requirements for workflow should be developed.

2.2 Potential for Outsourcing

The recommended approach to outsourcing is as follows:

- Identify the services and processes that are unique to the British Council and give the Council its competitive advantage
- Ensure that the Council retains ownership of the architecture and potentially development and support for the systems supporting the services and processes unique to the Council (see bullet above)
- Identify current bespoke solutions that can be migrated to industry standard systems and develop migration plan
- Consider outsourcing the industry standard solutions to a 3rd party, e.g. SAP³

The above approaches are described in more detail in the following sections of this document.

³ While it is possible to migrate existing bespoke solutions directly to a third party, it is likely to be more cost effective in the long term, and less risky to migrate to industry standard systems first. However, more analysis that is detailed needs to take place before a decision is finalised.

3.0 Collaboration Domain Architecture Description

It is clear that there is considerable overlap and commonality between the collaboration and application domains, this document should therefore be read in conjunction with the application domain roadmap.

The Collaboration Domain consists of all the British Council business applications, excluding those that are a part of the applications domain or the platform domain.

In summary, these applications provide the following services:

- Collaboration services
 - Mail and messaging, including instant messaging
 - Online forums
 - Workspaces
 - Web conferencing
 - Video conferencing⁴
- Workflow
- Data archiving

The following services are *not* included in the Collaboration Domain, but have functional commonality or otherwise touch on the Collaboration Domain:

- Exams & Teaching Centre Services (Application domain)
- Relationship Management Services (Application domain)
- Integration and Common Application Services [e.g. Identity Management] (Application domain)
- MS Office (Platform domain)
- Service Access:
 - On-line access services (e.g. Content Management)
 - Face-to-face access services (.e.g. Teaching Productivity Tools)

As with many architectural constructs, this separation of domains is somewhat artificial; in reality, collaboration is something that individuals and groups **do** within both an enterprise and its extended community; they perform collaborative activities and have a **style** of collaboration that may exist without ICT support.

It may be useful therefore to consider what types of collaboration take place in and around the Council, without initial consideration of whether they are 'inside or outside the firewall', and to consider the functional capabilities required of solutions that support them.

As an illustration:

- Instant Messaging
- Online Forums
- Document-centric Workspaces

... are all equally applicable to external collaboration as internal.

For each of these it may be apparent that a shared approach may be essential to collaboration itself. For example, sharing of document workspaces may be a requirement for an extended community of British Council and associate teachers. It should have TCO (Total Cost of Ownership) benefits, for example, IM, as a one-to-one interaction might not be significantly impeded by having separate 'internal' and 'external' systems, but would cost more.

⁴ Not currently managed as a global service

To gain maximum business value, it is important to embed collaboration into the British Council's culture. The way to do this is to define the behaviours required and identify the functionality that will support those behaviours. This is not unlike the normal process of developing application requirements from an understanding of the business processes they support. Once the functional requirements for collaboration are defined, mapping technical solutions becomes relatively straightforward.

3.1 British Council's Enterprise Architecture Approach

The Enterprise Architecture is a comprehensive framework used to manage and align an organization's business processes, Information Technology (IT), software, hardware and information requirements with the organisation's overall business strategy.

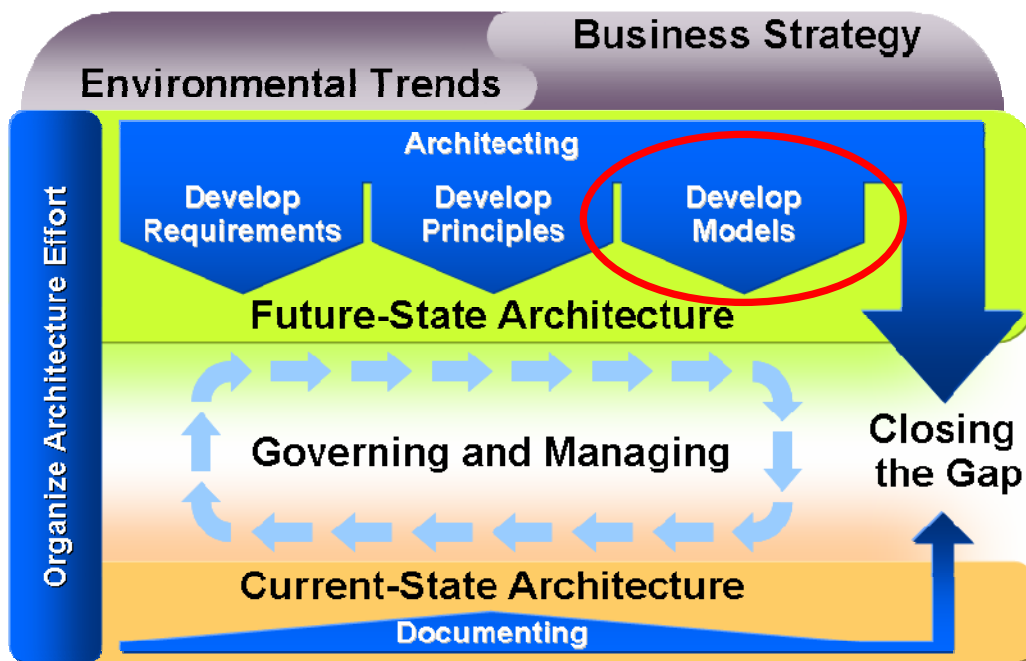


Figure 1 - British Council Enterprise Architecture Approach

The document focuses on defining the future state model for the Collaboration Domain.

3.2 Position of the Collaboration Domain within the overall Enterprise Architecture

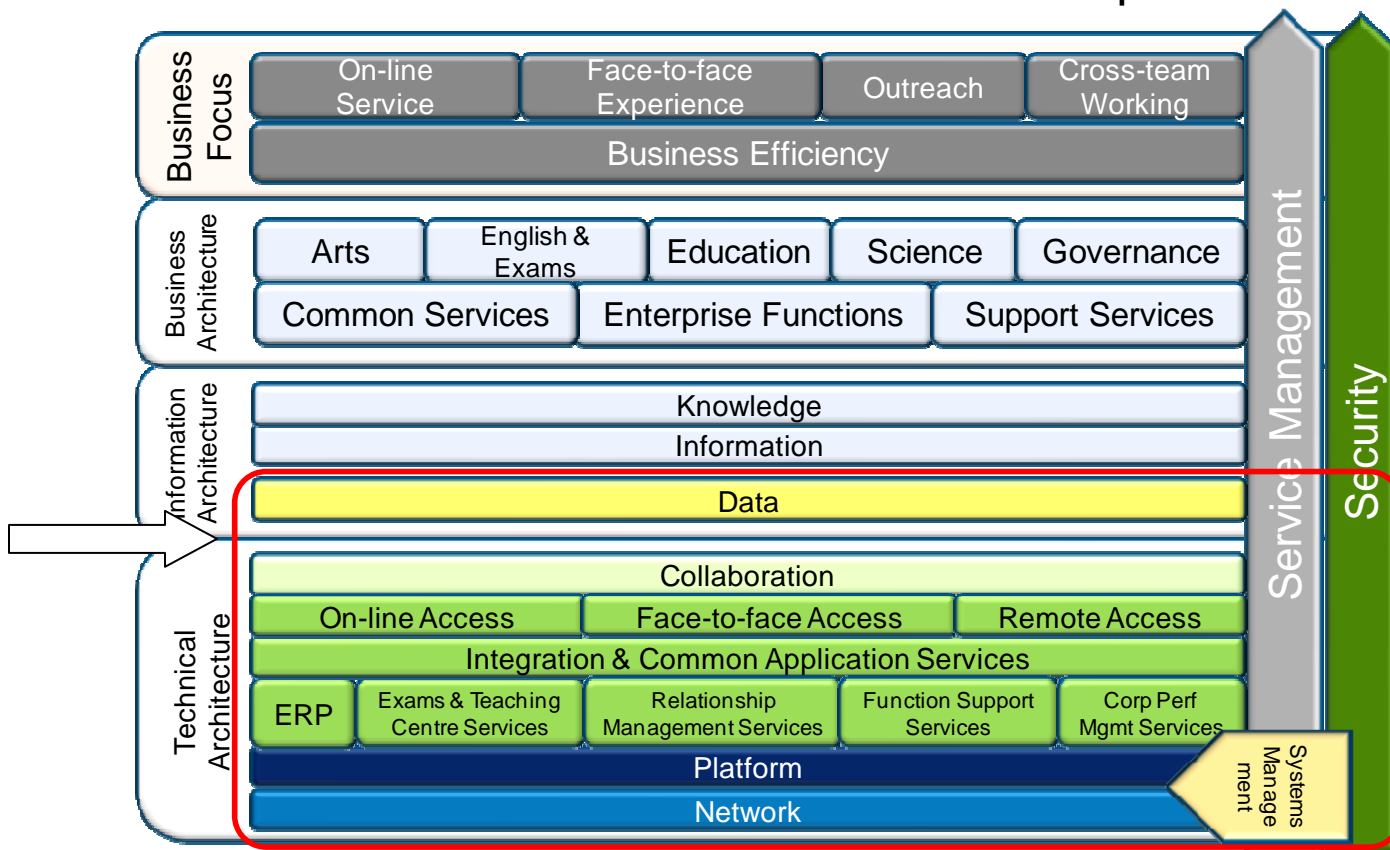


Figure 2 - British Council Enterprise Architecture domains

The Collaboration Domain is one of seven enterprise architecture domains currently identified within the British Council. The 'in-scope' domains are shown within the red box in the picture above.

The collaboration domain incorporates the main business applications and excludes application components that are part of the application or platform domains (see introduction to this section above).

The capabilities of the Collaboration Domain are listed in detail below.

3.3 Capability Summary

Collaboration services fall into one of three areas:

- (User Facing) Collaborative Interaction Services – services directly accessed by British Council's staff (and by the wider definition above, its customer and partners) as a means of collaboratively achieving an objective or task
- Integration and Common Services – the mechanism for integrating services across different systems and providing consistent common services to systems
- Internal Services – services which enable the British Council to run its businesses but which are not directly involved in collaborative activities (e.g. a collaborative micro site related to a course might look to CAMPUS for its group membership)

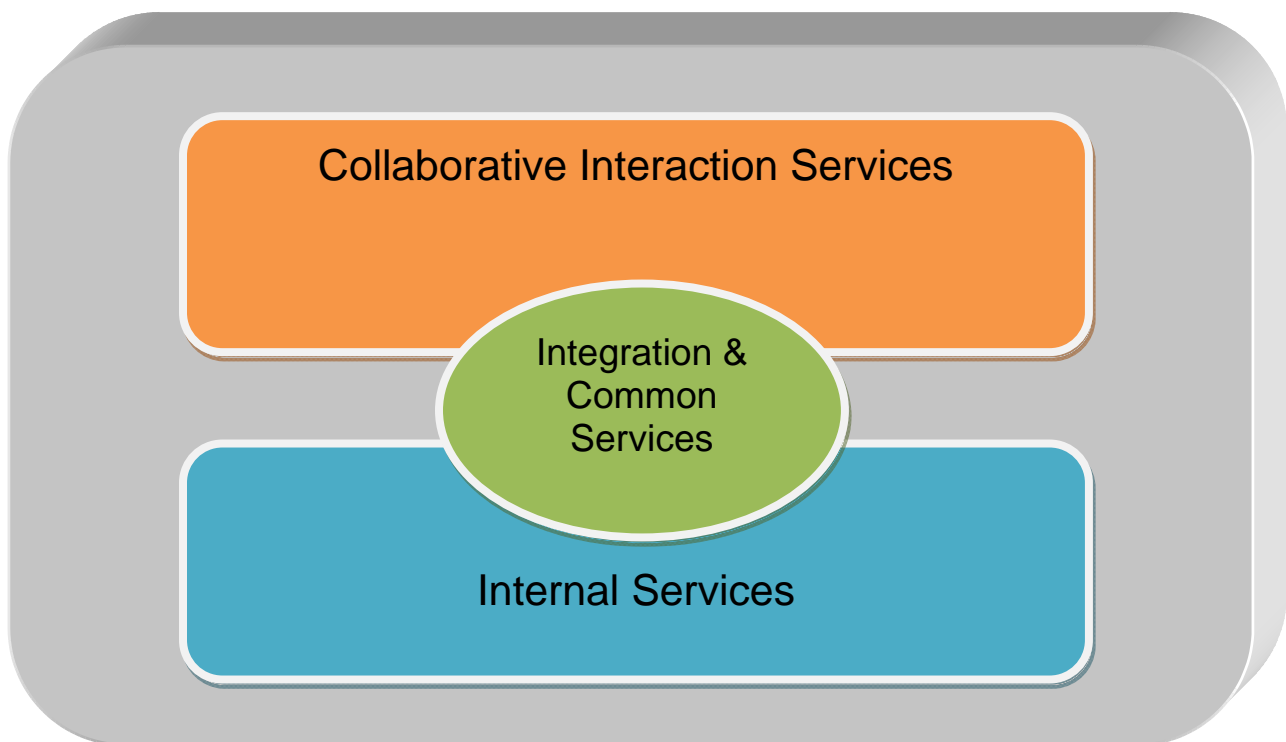


Figure 3 - Collaboration Domain Service Model

It will be noted that the above model is very similar to Figure 3 in the Application Domain Roadmap, since it shares a common architecture approach.

3.3.1 Collaborative Interaction Services

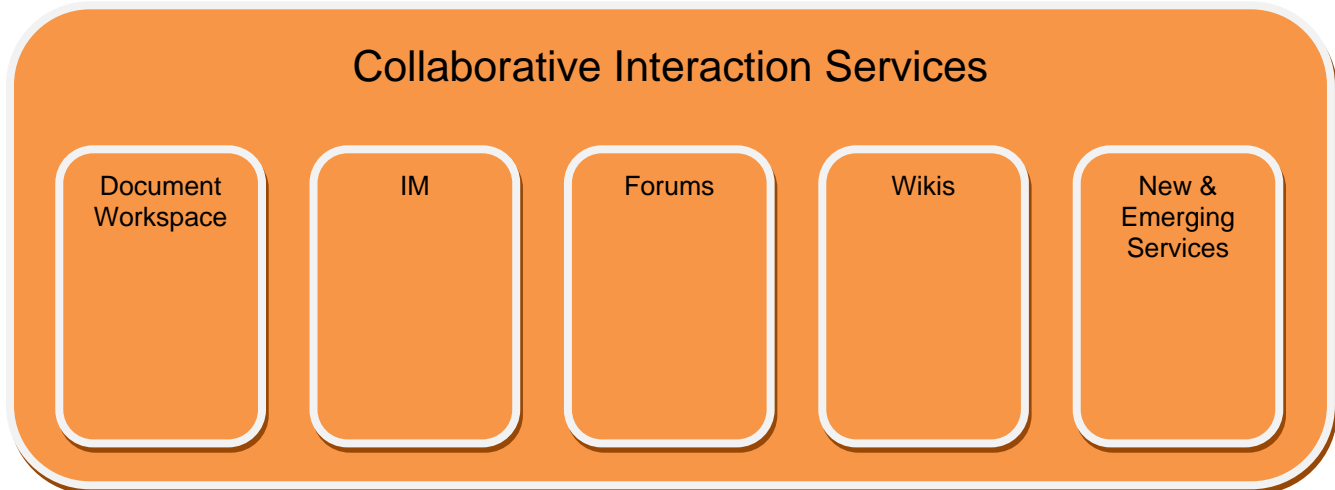


Figure 4 - Collaborative Service Model

4.0 Direction of Travel

4.1 Business changes impacting the Collaboration Domain

The key business changes that affect the Collaboration Domain in the near future are:

4.1.1 Maximising Efficiency

To be more efficient in the operation of the business, The Council must 'work clever'; the appropriate use of technology-supported collaboration can assist in this by:

- Facilitating re-use through the visibility (and 'find ability') of intellectual assets⁵
- Reduction of cycle time both in ad-hoc (e.g. shared workspace) and more formal (process driven) activities (e.g. workflow)
- Elimination of geographical boundaries
- Providing a level of 'cultural substitution' for the interactions lost with the passing of face-to-face contact
- Maximising the use of talent with non-classic working situations (part time, home based, distant)

4.1.2 Responding Effectively to the Business

The British Council is, like many organisations, experiencing a major shift from doing business face-to-face to on-line working. A feature of this change is that it is moving very quickly and subject to many short-lived fads and fashions.

Many of the British Council's customers will be involved in this change and in order for the British Council to thrive and survive it must be able compete and lead the field in terms of its on-line presence.

⁵ This requires the implementation of an effective search mechanism across workspaces

The dynamic nature of this environment means that IT has to be even more responsive to demands from the business otherwise the British Council is in danger of losing the race with its competitors.

In order to achieve such levels of responsiveness it is imperative that business solutions can be quickly built up from existing components or 'services' rather than having to acquire complete systems from scratch every time requirements change.

4.1.3 Leveraging Our Information Assets

Information is one of the British Council's major assets. In the past, it has been challenging to leverage these information assets across the organisation partly because of the way the business are organised, but also because of the disparate applications architecture (it could be argued in turn that this is a result of the business organisation).

There might be a perception that collaboration is ephemeral, and very often the implementation of collaboration solutions is poor, and less-than-effective at leveraging the value of all that has gone on. The reality is that collaboration processes generate a high percentage of high value information assets and that solutions should provide means of identifying, managing and 'publishing' these.

4.1.4 Increasing Business and IT Efficiency

Another key business objective is to optimise both business and IT efficiency. This involves balancing IT investment against business value, and ensuring that maximum value is obtained from existing IT assets.

The Council has invested in the procurement of overlapping collaboration solutions without rigorous consideration of whether the functional requirement can be met out of the existing IT estate. In line with the principle⁶ of getting as much value as possible from the SAP and Microsoft applications and infrastructure, serious consideration should be given as to whether these can be built on the existing SharePoint investment.

Note that the above elements are shared with the application and data domains; this reflects the commonality across these domains, and the links to the collaboration domain.

4.2 Technology opportunities

A number of technology opportunities can have an impact on the collaboration domain. These include:

4.2.1 Leveraging Microsoft capabilities

The British Council has made considerable investment in Microsoft Infrastructure again both in terms of solutions and capability. In addition, the British Council's status as an educational establishment and charity means that it receives favourable licensing pricing for all Microsoft products.

There is a perception (common in the wider world, as well as in the British Council) that SharePoint is fine for internal use, but lacks the scalability and rigour required to expose it to the outside world; some of this view persists from earlier versions (which it is acknowledged, were seriously deficient in many areas).

While Microsoft Office SharePoint Server 2007 (MOSS) is not an out-of-the box solution, with no requirement for development or extension, its ubiquity is 'changing the game' with regard to Content Management and Content Centric Collaboration. Its high level of coherence with Microsoft Office makes it popular with users as a 'User Interface Layer' even where its functionality is supplemented with third Party products or bespoke development.

⁶ Technical Principles 1 & 2 – see Appendix 1 - Principles Guiding the Collaboration Domain for full list of related principles

This introduces the risk of having to rework components following a major upgrade. This has happened already at the British Council with a previous upgrade to MOSS. Consideration should be given to ways of mitigating this in the future – potentially this responsibility could be passed to a third party.

Users can benefit from single sign on and collaborative tools around (for instance) standards-based records management, or SAP data exposed in the SharePoint UI through SharePoint Business Data Catalogue, without being aware that these are not SharePoint features.

4.2.2 Integration Platforms

Once the concept of an integration platform has been accepted, a natural progression is to move common functionality, such as auditing into the platform itself so that it does not have to be implemented by each application.

Integration platforms can provide a pre-defined set of standard, tools and common service components. Applying British Council's architecture principles⁷ there are two candidates for the provision of an integration platform, one based on SAP using SAP's Netweaver technologies, the other based on Microsoft's .NET technologies. There is an emergent trend to exploit SharePoint (and the 'already out there and familiar to the users') as a springboard to delivering applications that still benefit from the flexibility of .NET code). This is equally applicable to applications in the Application and Collaboration domains.

Exploring the Options

The next step is to begin to map the business changes and technology opportunities onto the Collaboration Domain model.

4.2.3 Mapping Business Change to the Collaboration Domain

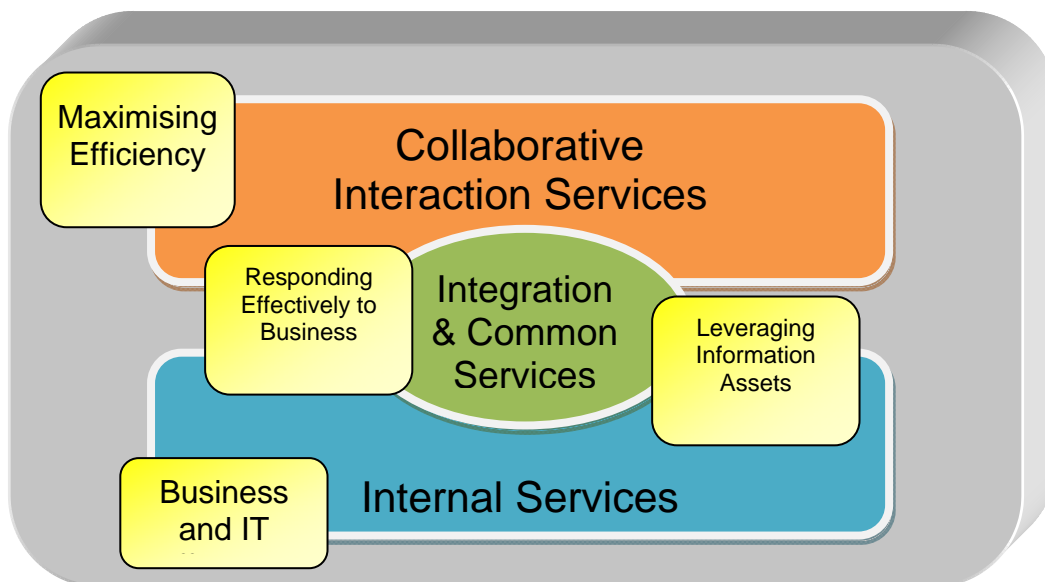


Figure 5 - Mapping Business Change to Domain Model

⁷ As above

Attributes needed to meet the key business requirements:

4.2.3.1 Maximising Efficiency

- Reuse (of assets)
- Process driven, e.g. workflow capability
- Global solution

4.2.3.2 Responding Effectively to Business

- Reuse (of capabilities and components)
- Modular
- Open standards
- Easy to integrate
- Strong governance

4.2.3.3 Leveraging Information Assets

- Consistent data access mechanisms
- Data standards
- Master data management

4.2.3.4 Business & IT Efficiency

- Business process standardisation
- Leveraging IT assets, reuse
- Strong governance

4.2.4 Mapping Technology Opportunities to the Collaboration Domain

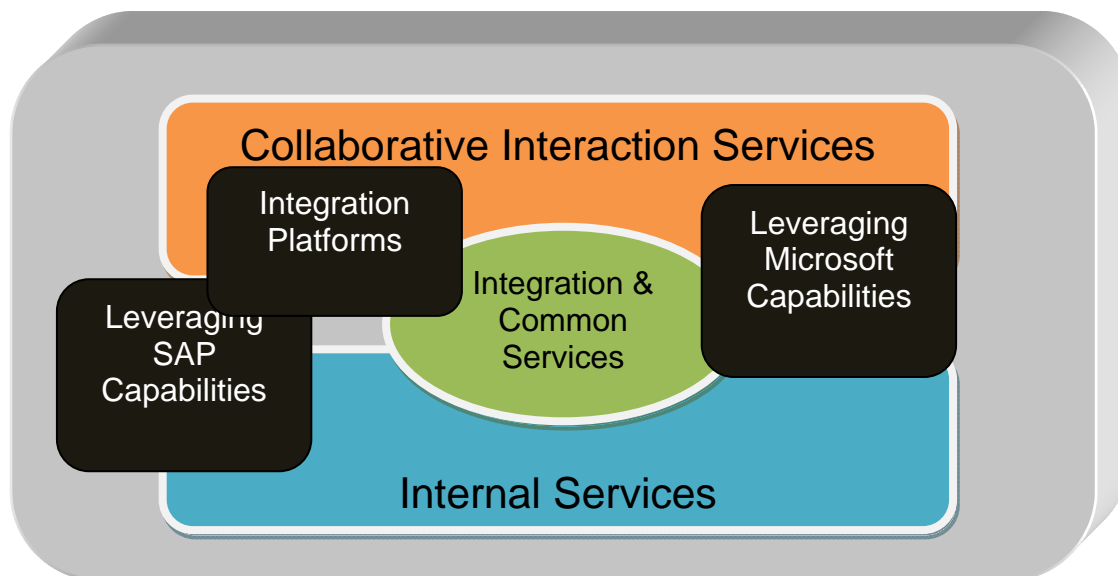


Figure 6 - Mapping Technology Opportunities to Domain Model

Please refer to the application domain Roadmap document for more information, and a more in-depth discussion of *Integration & common Services*, and the governance required to support it.

4.3 Summary of Benefits

		Collaboration			
		Presence Management	Requirements Analysis for Collaboration	Shared Service Collaboration Platform	Workflow
Prioritisation Rating		21	22	19	18
Difficulty (1 = easy, 5 = difficult)		1	2	2	2
Cost (1 = low, 5 = high)		1	2	3	2
Dependency Factor (1 = has dependents, 5 = no dependents)		4	1	2	3
Benefit	Importance (1 = low, 5 = high)				
Increase business efficiency	5	4	5	5	5
Reduce operational risk	3	2	5	5	3
Faster time-to-market	3	2	2	3	2
Flexible business relocation	3	5	3	3	3
Flexible delivery channel support	2	2	1	2	4
Flexible working (e.g. 3rd parties)	2	3	2	2	4
Better access to information	4	4	3	3	3
Improve service quality	3	4	3	4	5
Improve scalability	3	4	1	3	3
Reduce IT costs	5	5	3	3	2
Strengthen compliance & security	4	1	2	4	4
Reduce training needs	1	2	2	4	2
Value (Higher = more value)		128	110	134	129

Figure 7 - Enterprise Architecture Benefits Matrix – Collaboration Domain

Figure 7 above illustrates the relative benefits attributed to the initiatives described in this document.

5.0 Detailed Description

5.1 Logical Domain Model

Microsoft
SAP
Bespoke
Other COTS
Not Defined

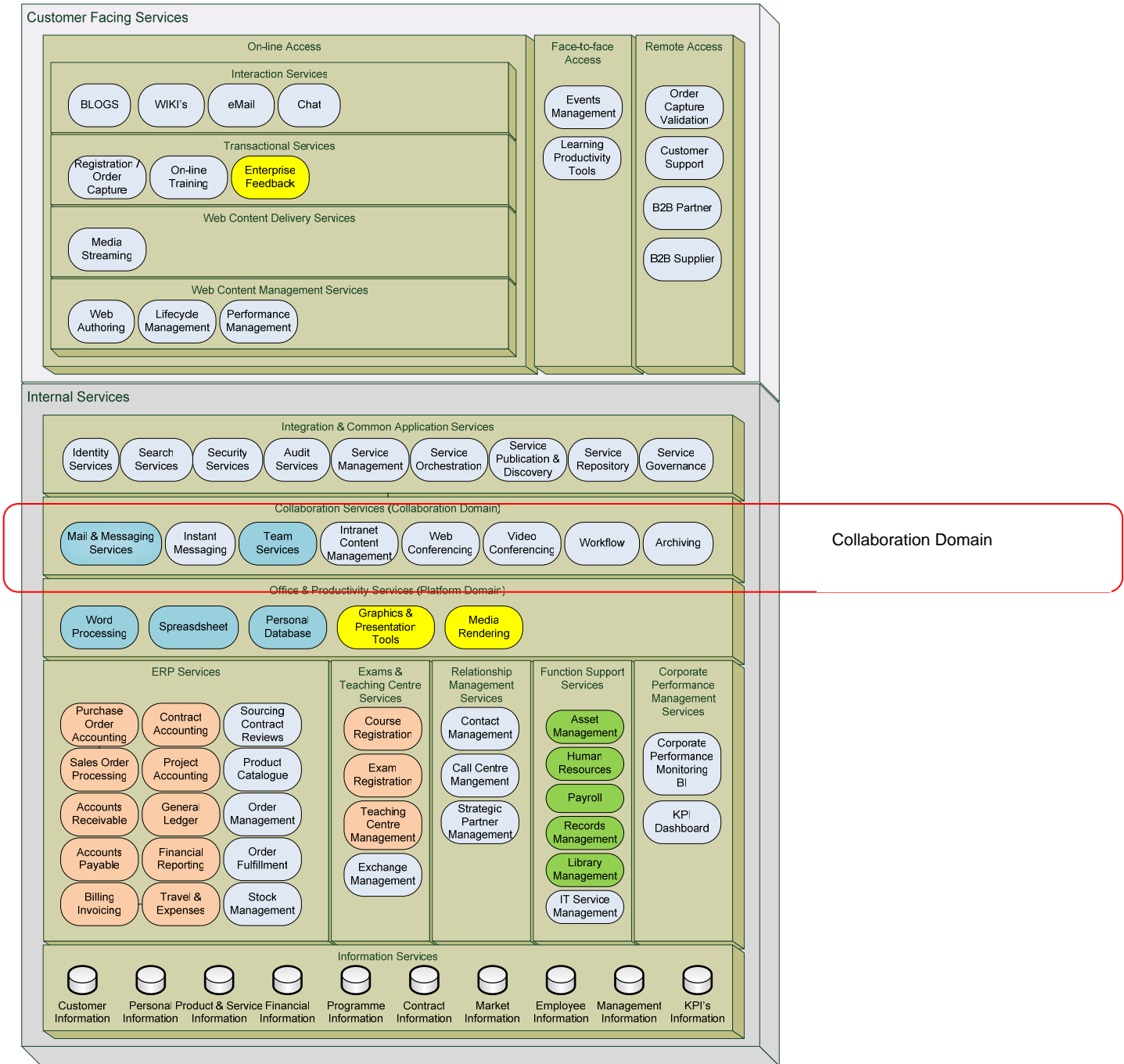


Figure 8 - Logical Collaboration Domain Model, Showing relationship to Application Domain

6.0 Making it Happen

This section describes the consideration in order to implement the recommendations in this document for the Collaboration Domain.

6.1 Technology Choices

Microsoft Office SharePoint Server (MOSS) is the primary technology for collaboration within the British Council; however, consideration also needs to be given to integration of other components including SAP and on-line systems.

6.2 Key Organisation Processes

The following processes are required to develop and implement the collaboration domain:

- Enterprise architecture governance
- Solution lifecycle:
 - Business case development
 - Requirements analysis
 - Solution design
 - Solution procurement or development
 - Solution Testing
 - Solution implementation

6.3 Resources and Skills

The key resources required to implement the collaboration domain are:

- Enterprise architecting
- Business requirements analysis
- Solution design
- Data analysis

6.4 Provision Assumptions

It is assumed that the British Council will want to retain control over the Enterprise and in some cases solution architectures in the context of the collaboration domain; however detailed implementation work could be outsourced to third parties where this is appropriate.

6.5 Milestones and Deadlines

The key milestones that affect the application data are as follows:

The key milestones that might affect the collaboration domain are as follows:

- Completion of SAP FABS rollout by 2010
- Implementation of Online Transformation – no specific timescale are currently available
- Retirement of Obtree, the current Web Content Management system, and the need for a replacement for E&E and OTP

6.6 Domain Strategic Roadmap

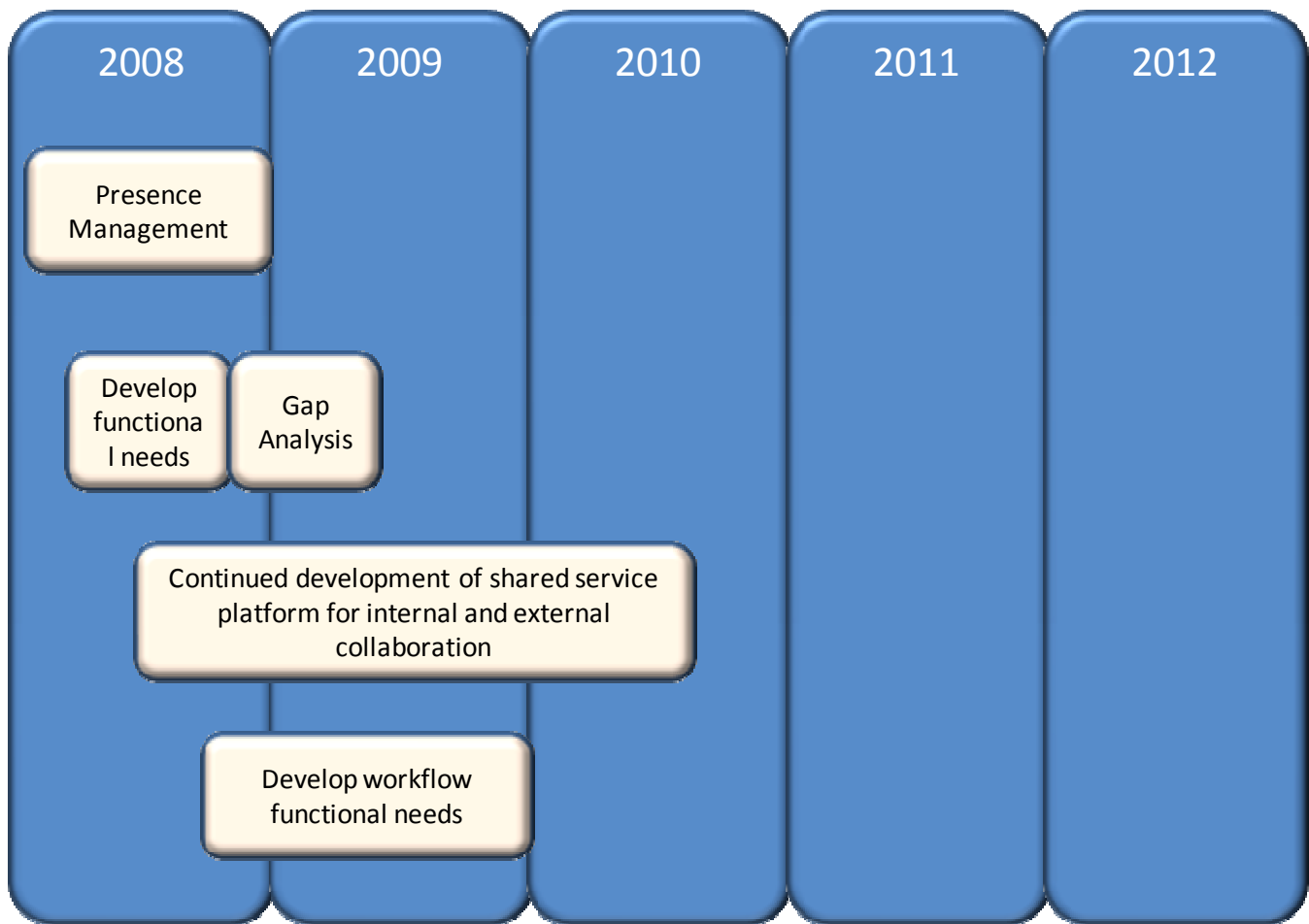


Figure 9 - Collaboration Domain Strategic Roadmap

6.6.1 Step 1 - Presence Management

Develop presence management solution based on using pre-existing Microsoft technology. This should be seen as a quick win activity.

6.6.2 Step 2 - Develop Functional Needs for Internal & External Collaboration

Establish the requirements for both internal and external collaboration, based on existing and emerging uses. This will overlap work within the application and data domains. Part of the work will be to develop the data requirements and standards, e.g. metadata, taxonomies and ontology.

6.6.3 Step 3 - Gap Analysis

Establish to what extent the existing MOSS solution can meet the overall collaboration requirements, and what, if any other tools would be required.

6.6.4 Step 4 - Continued Development of Shared Service Platform for Internal & External Collaboration

Develop the existing MOSS collaboration solution to become the global shared service platform for internal and external collaboration.

6.6.5 Step 5 - Develop functional workflow needs

Develop functional requirements for workflow.

7.0 Appendix 1 - Principles Guiding the Collaboration Domain

7.1 Business Principles

Business Principle 1 - Climate Change and Environmental Policy
Business Principle 2 - Business Agility
Business Principle 3 - Maximising Efficiency
Business Principle 4 - Information as an Asset
Business Principle 5 - Security Strategy

7.2 Functional Principles

Functional Principle 1 - Common Functionality
Functional Principle 2 - Modular Solutions
Functional Principle 3 - Scalability and performance
Functional Principle 4 - Legal and Regulatory Requirements
Functional Principle 5 - Confidentiality, Integrity and Availability of Data and Systems
Functional Principle 6 - Security Policy
Functional Principle 7 - Information Quality
Functional Principle 8 - Business Continuity

7.3 Technical Principles

Technical Principle 1 - Business Applications and the British Council
Technical Principle 2 - Maximising Microsoft Infrastructure Benefits
Technical Principle 3 - Industry Standards
Technical Principle 4 - Buy not build
Technical Principle 5 - Flexibility
Technical Principle 6 - Non-vendor specific solutions
Technical Principle 7 - Security Standards
Technical Principle 8 - Common data model
Technical Principle 9 - Data duplication
Technical Principle 10 - Solution Characteristics

7.4 Implementation Principles

Implementation Principle 1 - Health & Safety
Implementation Principle 2 - Strategic Suppliers and the British Council
Implementation Principle 3 - Provision of Services

7.5 Governance Principles

Governance Principle 1 - Enterprise architecture is business driven
Governance Principle 2 - Architectural values are to be publicised
Governance Principle 3 - Architecture efforts must be unified across the Enterprise