

Microsoft and Building Schools for the Future  
**Overview Guide**

**Microsoft®**





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## Executive summary

### Transforming schools, inspiring learning

“Working together to create world-class, 21st-century schools – environments which will inspire learning for decades to come and provide exceptional assets for the whole community.”<sup>1</sup>

Through the Building Schools for the Future (BSF) programme, the Government is committed to rebuilding or refurbishing all primary and secondary schools in England, and as a direct consequence of this investment aims to transform learning.

The challenge lies in the fact that there is little consensus on how learning can be transformed, what a transformed school looks like or the best route to choose to raise standards.

To support the BSF process, Microsoft believes that decision makers need resources and guidance to help them build a future vision which allows sufficient flexibility for the present, and deep insight into the future.

Working with experts from local authorities, schools, construction companies and Information and Communications Technology (ICT) providers, Microsoft has developed a set of resources, and accompanying services, to support your work as you create your vision of transformed learning and move towards the implementation of BSF in schools.

In this document we introduce some of the principles of our work and provide an action plan for moving forward to successful implementation.

<sup>1</sup> [www.bsf.gov.uk](http://www.bsf.gov.uk)



## Introduction

The BSF programme is an unprecedented, once in a lifetime programme directly linking capital investment to school improvement and student achievement. A total of £45 billion has been committed to rebuild, remodel or upgrade every secondary school in England within a 15-year period. An additional £10 billion has also been recently allocated to achieve renewal and transformation in primary schools. The programme has the potential to renew school buildings, to transform primary and secondary education, and to create the foundation for joining up wider public sector services such as Children's and Health Services.

The scale of development and the consequent pressures on time, budgets and procurement are exceptional. This presents a vital challenge for all stakeholders: they must ensure the focus on education outcomes remains strong and secure throughout the whole process. Therefore, a clear educational vision is critical and central to the entire programme – from initial discussions with stakeholders, to the successful operation of the new schools.

Equally important are the considerable change management, stakeholder analysis, prioritisation, communication and project management requirements.

To help stakeholders negotiate the maze of opportunities, Microsoft has produced a set of resources, a dynamic process and supporting services to encourage and support considered use of ICT to accelerate progress towards better educational outcomes.

### The three areas we address in Microsoft's guidance are:

**Educational scenarios:** we present alternative models to illustrate how technology can support improved educational outcomes.

**Business value:** we describe how additional benefit can be derived from the complementary and appropriate use of ICT, and discuss routes by which that value can be delivered.

**Technology guidance:** we describe a technology baseline that can be used as a benchmark for the provision of ICT-related services within the educational environment.

For the BSF programme to achieve its stated objectives, change is required. The work we have done will help you to mitigate risk, reduce the cost, and maximise the opportunity for success with your implementation.





## Addressing the challenge

ICT is seen as a key enabler in achieving education visions suitable for 21st-century learning. However, according to research conducted by Cranfield University's School of Management, many ICT investments fail to deliver all the business benefits potentially available. This failure is often due either to lack of understanding of what can be achieved or ineffective organisational approaches to ensuring the benefits, that justified the investment in the first place, are obtained.

**In the context of BSF, the challenges revolve around three areas:**

**Complexity:** the size and duration of the investment programme

**Capacity:** the readiness of suppliers to deliver sustainable, quality solutions

**Capability:** the ability of local authorities to articulate and drive change

**Capacity: the readiness of suppliers to deliver sustainable, quality solutions**

The nature of the BSF procurement process invites participation of a range of suppliers with diverse expertise such as: education consultants, ICT suppliers, prime contractors and architects. A key challenge is to ensure consortia of suppliers are sufficiently resourced with qualified expertise to deliver and sustain the project.

**Complexity: the size and duration of the investment programme**

**Link between investment and outcomes:** There is a need to articulate clearly the value of ICT investments and to link the desired results to the aspirations of the five pillars of Every Child Matters.

**Massive change in infrastructure and culture:**

Many stakeholders we interviewed, including local authorities and schools, shared the concern that there is an under-appreciation of the complexity, breadth and cost of the transition to a new model.

**Inconsistency of approach:** The approach to the planning process can vary widely from authority to authority. For example, some local authorities employ their ICT supplier before their building supplier and others do the exact opposite. These variations can generate barriers to the easy transfer of learning from previous projects.

**Capability: the ability of local authorities to articulate and drive change**

Undoubtedly, BSF is a vast change management programme with implications for broader public sector services, procurement models and skill sets. In order for schools and local authorities to meet the aspirations of Every Child Matters, robust near term and longer term visions need to be in place. The visions need to be supported by frameworks and processes that address any gap and ensure successful delivery.

For example, teacher, staff and pupil readiness to operate effectively in the 21st-century learning environment imply significant activities, co-ordination and budgeting, that need to be planned for by school and local authority leadership teams. Clearly, this transcends specific skills and knowledge in ICT as a subject matter.

Structured guidance and tools that help minimise risk, improve communication and increase the opportunity for success are of immense value to all involved in the process.



## Audience, benefits and use

The resources and services available from Microsoft, and our consultancy partners, support a number of key stakeholders at various stages of the procurement process. The audience reflects those charged with delivering on the promise and aspirations of BSF.

At each stage, our resources and services provide unique value that contributes to the aims of your BSF programme based on local priorities and capabilities. The frameworks and processes provide these common benefits to each audience.

- A consistent and repeatable process for BSF envisioning and planning
- A common language to improve communication and reduce risks
- Educational models which enable the creation of robust education visions for the near and long term
- Help for stakeholders to use their BSF investment as a catalyst for joining up other public sector services and community regeneration programmes
- Models to link investment to desired outcomes
- Identification and prioritisation of a comprehensive set of initiatives and projects that support the BSF vision
- Construction of a stakeholder map to help ensure buy-in from all participants
- A mechanism to maximise value for money by reducing cost not quality



## Educational scenarios

The model of transformation used throughout our envisioning and planning process is based on two pathways for change, known as the 'T-route' and 'P-route'.

Identifying with either route does not occur in isolation; instead it is the result of one or more extensive envisioning exercises where key stakeholders consider in-depth their near and long term education and school requirements, capabilities and entitlements. This process focuses on the 'art of the possible' in terms of educational capabilities and may expand to encompass the broader Children's Services agenda and other government services.

Scenarios and day-in-the-life tools are provided to engage stakeholders and promote informed debate. At the conclusion, stakeholders will be able to match their near and long term educational requirements with aspects of the scenarios and day-in-the-life practical examples they agree with and be better informed of the values and benefits of the different pathways for change. This process engages stakeholders and promotes constructive debate resulting in robust outcomes.

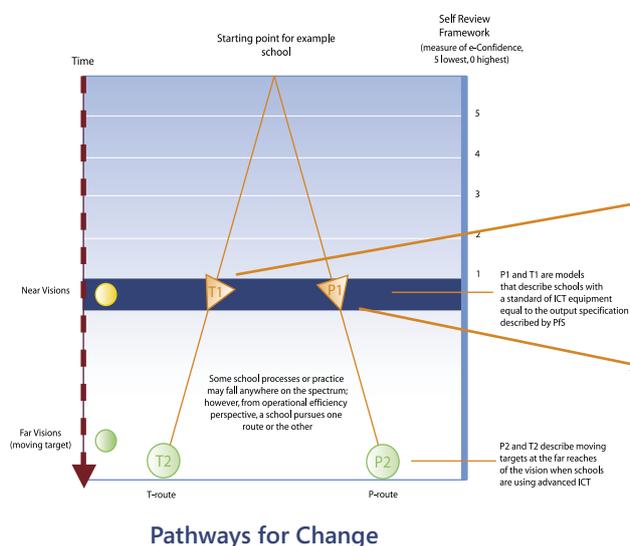
To explain the models further, consider the learning process as a relationship consisting of three entities: Pupil, Teacher and Curriculum. Most current education models promote the notion of the teacher as the manager and owner of this relationship. Guided by requirements set by central government, the teacher drives the learning process by

identifying the content to be learned, the process by which it is delivered, when it is delivered and the frequency. This is exemplified by the familiar school timetable. In our BSF process, this is represented as the 'T-model' with a 'T-route' as the pathway for change.

An alternative view is for the Pupil to own and manage this relationship. The implications are significant and wide. This is the 'P-model' and associated 'P-route', which when used as a pathway for change reflects this style of learning.

The T and P pathways to change are described more fully in Microsoft's BSF consultancy process for educational scenarios, along with more in-depth practical day-in-the-life examples of different users of 21st-century ICT-enabled learning.

The educational scenarios process discusses the two education models in depth, focusing on the characteristics and implications of each model from the perspective of different stakeholders. This provides sufficient detail to help stakeholders align with the most appropriate model for their BSF implementation. This has proven to be a powerful technique for education stakeholders to develop and test the validity and cohesiveness of their vision.



**'T-route philosophy':** the balance of interaction is more towards Teacher-directed learning

**'P-route philosophy':** the balance of interaction is more towards Pupil-directed learning



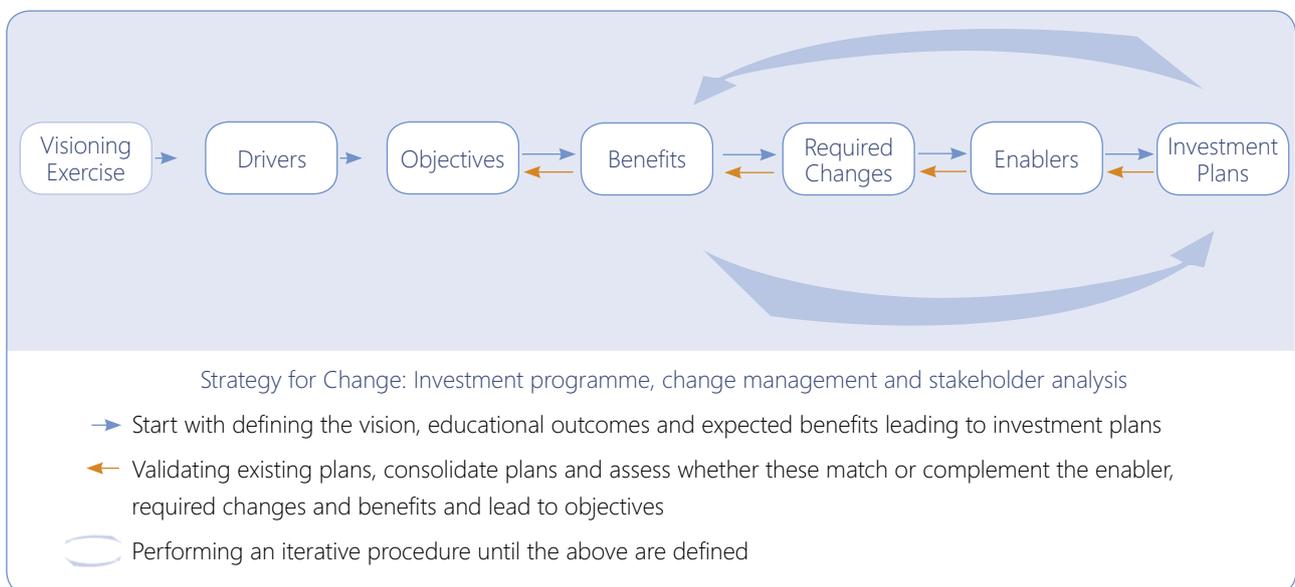
## Business value

“We must embrace new technology. Why ban mobile phones and iPods instead of using them... We need to get to a stage where IT is as integrated into learning as pens are.”

(Kent school teacher remark)

This remark captures the enthusiastic spirit of teachers and stakeholders for creating a vision of 21st-century learning.

Microsoft developed the process of identifying and linking business value in collaboration with a number of stakeholders including: local authorities, schools, ICT suppliers, central government, prime contractors and a prominent research institution.



### BSF Benefits Realisation Framework

The process discusses key concepts such as obstacles, opportunities and risks and provides a rigorous process for scrutinising investments to ensure they lead to your intended objectives. Local authorities and suppliers can realise the benefits of applying the framework to help develop the following strategic plans.

- A BSF ICT Strategy that closely links investment to educational outcomes
- Stakeholder analysis and map
- Prioritised projects and initiatives - ICT and non-ICT
- A holistic view of a change management programme

The **Benefits Realisation Framework**, used in this process, brings together a range of existing research and approaches into a view that focuses on the specific needs of the education sector. Furthermore, it provides a shared language and process between stakeholders, as well as an explicit articulation of the required change and a clearer sense of the priorities, risks and total costs. This leads to improved decision making for schools and local authorities and provides for creating a stronger business case for the BSF initiative.



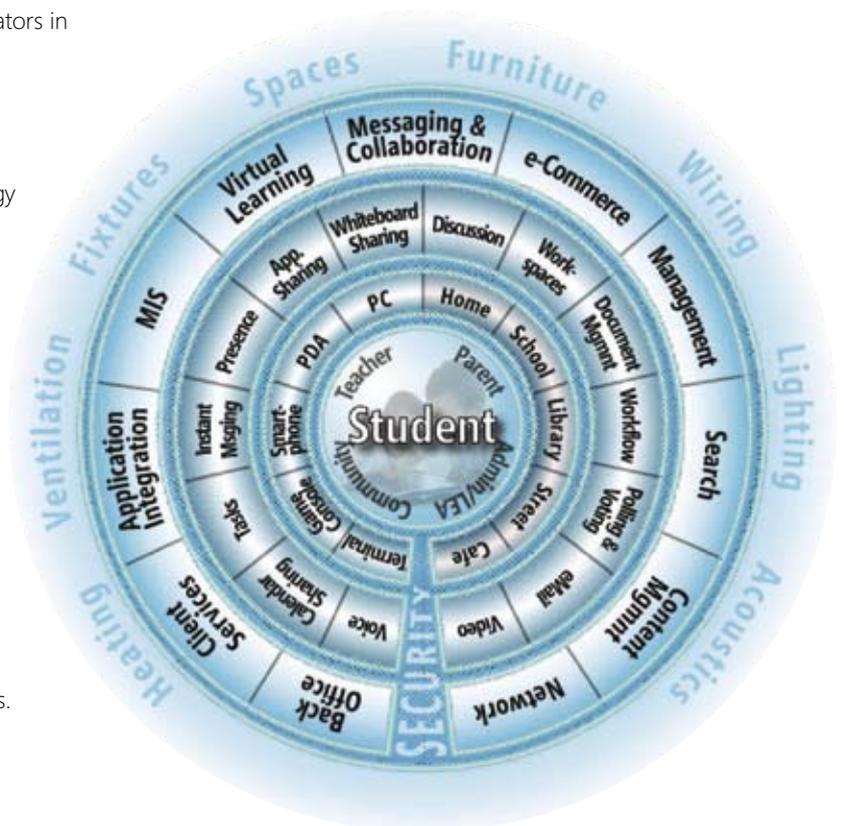
## Technology guidance

A progressive transformational education vision requires a reliable, always-on technology infrastructure to support it. Users don't think about IT because it is always there – just like any other utility service such as electricity, gas or water.

Microsoft's BSF Technology guidance articulates the different layers of the ICT infrastructure that will facilitate the positive experience of learners and educators in an increasingly connected, digital world.

It also provides a repeatable solution for all Microsoft ICT partners to design and build secure and scalable industry-strength technology infrastructure. This provides the foundation for reliable, connected, always available ICT-enabled educational services.

Schools, local authorities and ICT suppliers benefit directly from greater agility while, at the same time, reducing the costs and minimising the risks associated with deploying and managing complex services. The technical guidance is also a vehicle for greater innovation in the development of ICT strategy, by providing a wider and more flexible context to the deployment of ICT at the core of BSF projects.



BSF Technology Framework



## Example of educational scenario

An example of the resources that will be generated with you, to contribute to your strategic planning, is shown below. The essence of the planning process is that you will be able to create a vision that accurately reflects the way that you expect your schools to operate in the future, and that through this you will be able to confidently manage the relationships between your vision and the practical implementation.

In the illustration below we have shown how the Day-in-the-Life scenario planning will answer key questions related to implementation, and to the key success elements for BSF projects.

## A Day-in-the-Life of Julia – Year 8

Julia is a keen student in Year 8. She has a real passion for art and design-related study, an above average level of achievement, and is heavily involved in the cultural life of her school. She dislikes sport and physical activity.

**Early morning** Julia reviews part of her previous packaging course unit online from home using the family computer system and submits her assignment electronically, having made a few last minute changes. She has produced some great creative work but made some major errors in the calculations and measurements needed. When she goes to collect her handheld device she finds that it has a fault, so in a hurry asks her father if she can borrow his old one. Registering with it as her new device using her fingerprint and school smartcard, she heads off for her first class.

What do you need to ensure that students can securely access coursework from home? Where would collaboration help, and what is the best way to enable effective collaboration? How do you support multiple devices for a single student, and in the future what security considerations exist? What security model will be best to enable flexibility?



#### Mid-morning

Julia is on campus in the helpdesk office. On her way in, she realised she only had limited access to services using her father's handheld device and called the helpdesk. They asked her to visit the office to register the device so that she can have full secure access to her services.

In today's session on the packaging course, Julia reports her group's findings to the whole class. Her friend records the presentation on a handheld device and gives Julia a copy for her portfolio plus the slides and visuals they prepared.

Julia receives a message from a friend who has just finished a swimming lesson. They have an online chat for a while and invite a third friend, who is offline at present, to join them at lunchtime.

What services will need to be provided to support ICT, and what trade-off exists between personalisation and standardisation and cost of provision? How do you cater for different learning styles? How does it affect the layout of the environment? Where will the boundaries exist in the future between learning-centric communication and other types? How will you manage where you draw the line? And how often will it change?

#### Lunchtime

Julia joins her two friends for lunch in the cafeteria. Her handheld alerts her that an item she has chosen may contain traces of nuts; this information is held on an RFID tag in the packaging. She has a nut allergy but has agreed with her parents that she can make her own food choices.

How far does your planning go to enable the five pillars of Every Child Matters, and how much flexibility will you need for future changes? What will physical spaces look like, and where will ICT need to fit in? And does your review framework help to balance affordability and possibility?

#### Mid-afternoon

Julia uses a scheduled break to prepare for her mentoring meeting at a desk in a 'quiet study' room. She reviews her profile on a large display screen using a summary view to action points quickly from the last meeting and identify what she needs to do before her next meeting in two weeks.

Later, Julia attends a statistics lesson. The wall displays deliver content that best matches the learning preferences of learners in the immediate area. She takes part in a structured teacher-led session and leaves with several small assignments to complete in the next few days.

What training will be required for staff to benefit from a rich-media environment? What is the impact on curriculum planning?

#### The example considers the impact upon:

- educational outcomes
- physical space design
- learning personalisation
- workforce issues, such as professional development
- monitoring
- management and administration
- and many other aspects

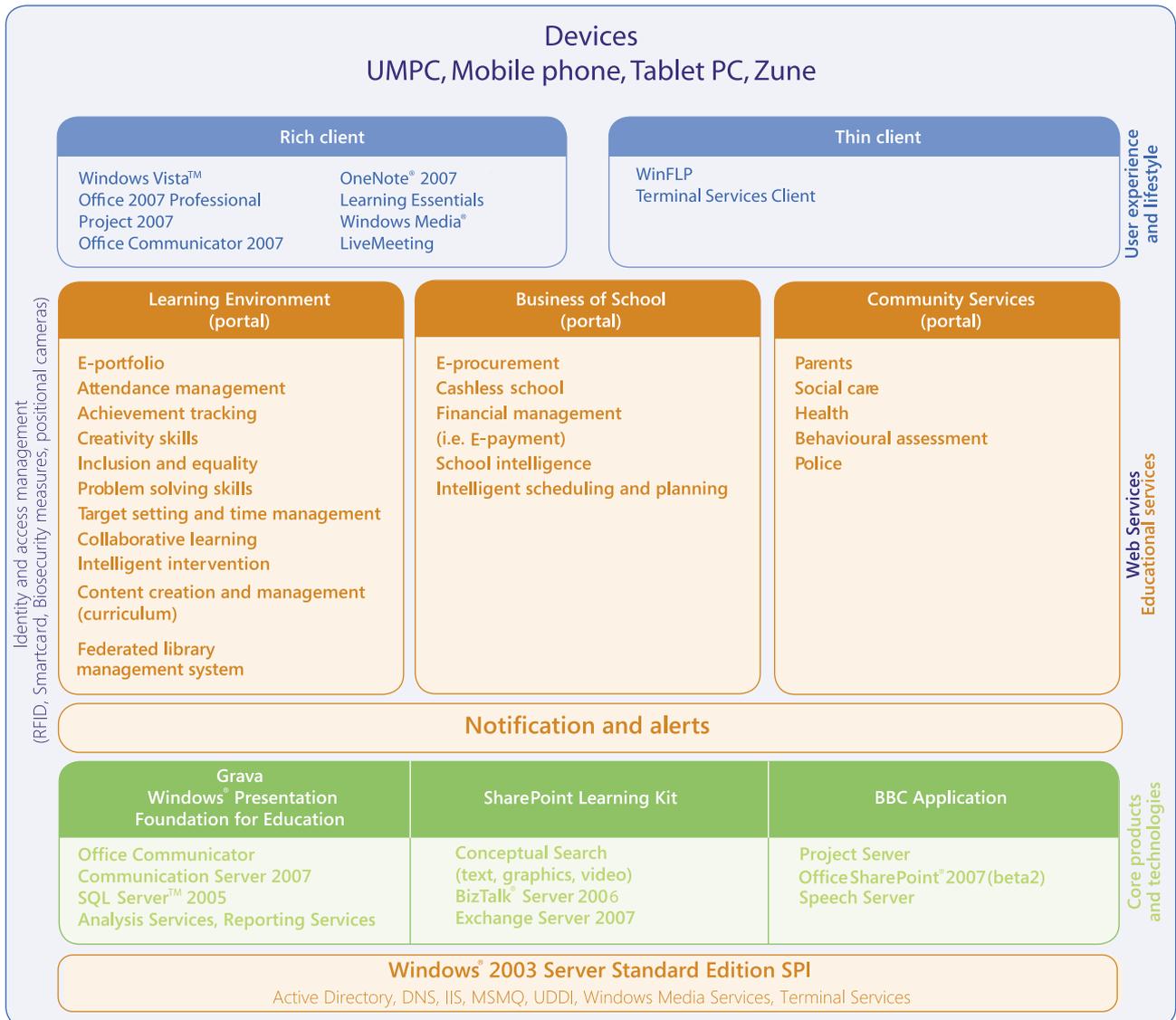


# The Building Schools for the Future Showcase

Microsoft's BSF Showcase helps stakeholders experience and visualise the power of ICT-enabled educational services in an increasingly connected and changing world. It can be used to 'raise the bar' on colleagues thinking by helping to understand what is possible now and may be possible in the near future.

Taking the view that BSF should be as much about the agenda for community renewal as building new schools, the Showcase provides a compelling view of the learners' experience in a connected world. Set in the wider context of the 'connected citizen in 2012' the Showcase also demonstrates the links to the wider agenda for modernising public services.

The BSF Showcase is a resource available to schools and local authorities to help develop their vision and inform their ICT strategy.





## Your next steps

Microsoft's work and expertise is available to all key stakeholders within the BSF programme, and those involved in other educational change projects, either directly from Microsoft Consulting Services or through our educational consulting partners.

The routes for you to access the resources and processes referred to in this document will vary according to your individual circumstances, which will depend upon your choice of educational consultants for your BSF project, and which stage of the BSF procurement process you are at.

### **Some of the benefits and outcomes of the services available to you include:**

- Creating school visions, drivers for success and a statement of alignment with the Every Child Matters agenda
- Complete an education focused benefits analysis, linking investment to education objectives, change management, stakeholder analysis and risk mitigation
- Joining your BSF strategy with the needs of the Becta Self Review Framework, Ofsted's Self Evaluation Framework, and the DfES Common Assessment Framework
- Reviewing your existing ICT and non-ICT initiatives against the provision of your current ICT infrastructure
- The production of functional and technical specifications
- A comprehensive vision for an implementation plan to use within your procurement





To learn more about how applying the proposed processes and models can contribute to articulating a stronger business case for your BSF investment; how you can develop robust near and long term educational visions for BSF; and how you can select the right set of partners to turn vision into reality, contact the Microsoft BSF team.

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