

**INFORMATION INTEGRATION PROCESS  
AND DEVELOPMENT IN IMPLEMENTING  
THE FINANCIAL SYSTEM (TAFIS)  
NEGARA BRUNEI DARUSSALAM**

By

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Abstract:

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Integration is defined differently by different people. It differs from one discipline to another.

Implementing TAFIS, the integrated Treasury, Accounting and Financial Information System, poses several challenges to all stakeholders – public officials, suppliers to government and citizens.

These challenges cover the processes of introducing the changes to acts, regulations, policies, practices and procedures that may be impacted. More importantly given these changes are elements of human creation, changing the mindset is the summararily the key successes factor.

Integration is not just getting 2 or more computer applications to share data. Integration covers integrating processes across departments, job specifications with system capabilities, manual processes with computerized processes, work flow with physical layout, performance management with service levels, etc.

The key to the integration process is by taking a total and holistic approach to implementation. In totality we have to consider not just the technology element but also the human processes, organizational, security, laws and regulations and environments.

Knowing the expectations of key stakeholders is crucial to project success and checkpointing how well we are meeting the expectations are necessary tasks irrespective of how well the project is progressing.

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## **INTRODUCTION**

### **Background of TAFIS**

The Treasury Accounting and Financial Information Systems Project (TAFIS) is one of the initiatives of His Majesty's Government to implement the e-Government strategy. TAFIS project is one of the many initiatives in line with the eGovernment strategy of the Brunei Darussalam National Information Technology (BIT) Council. It is aligned to His Majesty's directive to move the nation towards a knowledge-based economy.<sup>1</sup> The main objective of the TAFIS project is to improve the efficiency of government financial transaction processes.

It encompasses the following key application areas: general ledger, payables, receivables, budgeting/commitment control and reporting, assets management, inventory management and purchasing. The features include

- 1) Online real-time capabilities including browser-based user interface with workflows embedded into business processes and
- 2) Real-time approval of transactions with adequate security, preventing fraud and loss of monetary assets.

### **Integration**

Over the past 10 years, the integration of business processes has become a key success factor of any enterprise or government entity. The key to integration is the

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<sup>1</sup> TAFIS Newsletter

availability of integration tools and technologies that has made prior effort unduly expensive and complex. With integration, changes to processes and business requirements can be effected rapidly throughout the entity and with their business partners.

System integration can be defined as “the progressive linking and testing of system components to merge their functional and technical characteristics into a comprehensive, interoperable system.”<sup>2</sup> In simple term it means the ability of two or more objects or components to communicate and share effectively. This communication and sharing can happen at the source codes, records, files or the database level. A key driver of integration is the ability to share common data and resources. Thus releasing resources to focus on developing business capabilities.

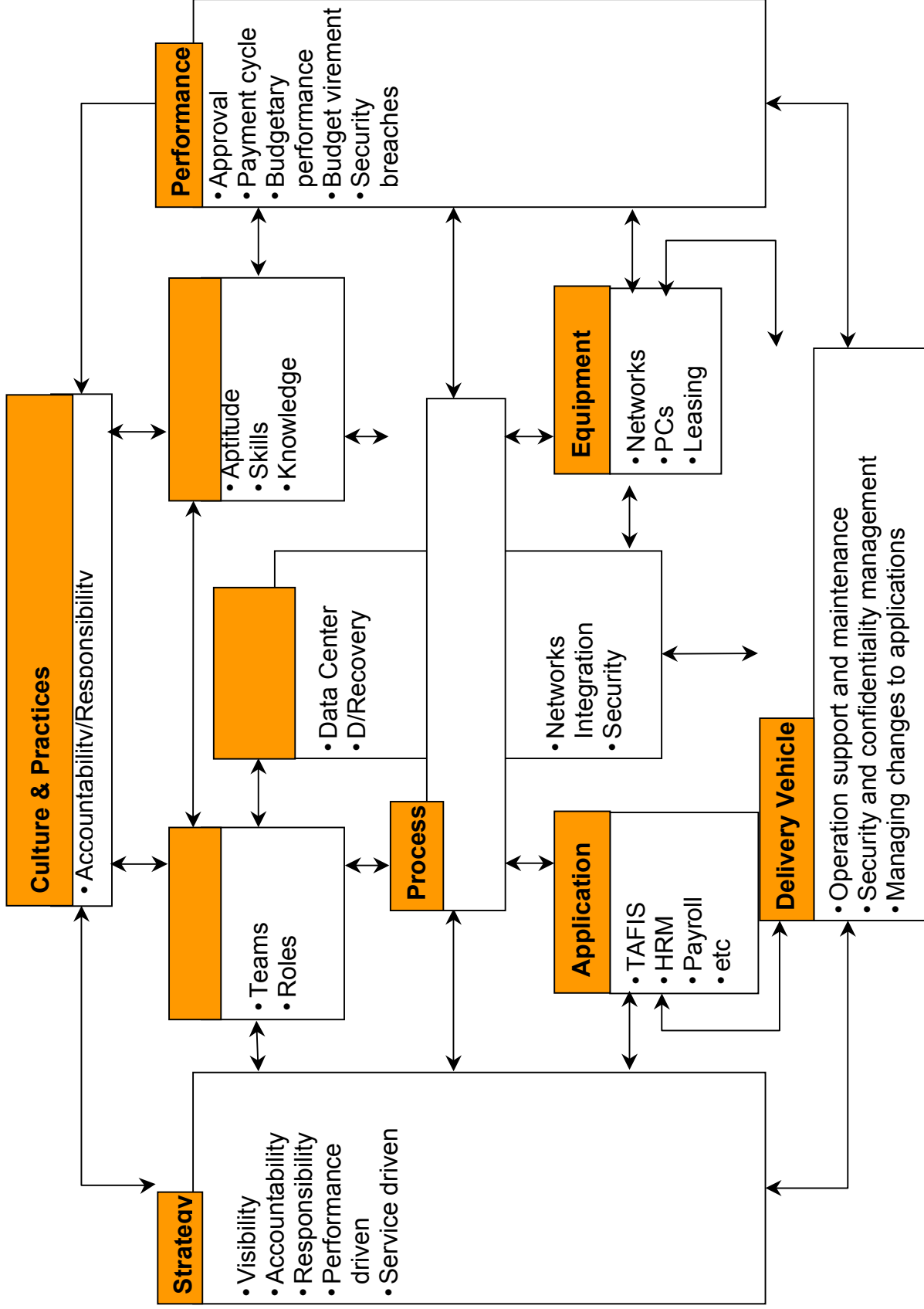
Integration has principally the key elements as depicted in Accenture’s business integration blueprint. Exhibit 1 shows the business integration blueprint. This shows how business integration involves different elements in an organization whether internally or externally that are interrelated.

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<sup>2</sup> Institute for Telecommunications Sciences Website. [www.its.blrdoc.gov/fs-1037/dir-036/\\_5265.htm](http://www.its.blrdoc.gov/fs-1037/dir-036/_5265.htm)

# BI Blueprint

Exhibit 1





However, in the case with government, additional elements are apparent and the importance of these elements differs with private enterprises.

As evidenced in the last few years, security in government is a key element to be addressed. Existing laws and financial regulations requires a creative relooking to accommodate the implications of new business processes that are based on information technology capabilities. In Brunei, there are Copy Right Order, Computer Misuse Order, and so on.<sup>3</sup> The laws and regulations can influence the design, development and implementation of the information systems.

The manner of introducing the changes in processes and management philosophy requires sensitive handling with care. Given the proven age-old practices, any justifiable changes to be successful must be:

PUSH through leadership AND

PULL for the change by those impacted by the change i.e., creating an environment where they understand the change and start to realize the value and start to want the change.

Based on the above, there are fundamentally 4 basic elements that must be addressed holistically. They are the technology, human, process and strategy.

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<sup>3</sup> The Attorney General's Chambers website. [www.agc.gov.bn](http://www.agc.gov.bn)

### *Technology*

This is probably the easiest to deal with. However the challenge is managing the integration of old and working, and newer technologies such areas as applications and telecommunication.

### *Human*

Human resistance to change is natural. However the resistance, depending on the change management plan, can be short-lived or permanent. Understanding the organization culture which is the intermingling of societal, organization and individual behavior, values and practices is crucial to having a practical change management plan. One of the main reasons that information systems might fail is that users resist change. Common reasons for resistance to change include doing new and different tasks, the fear of uncertainty, and the fear of being displaced due to the change in the technology. With the new introduction of technology in an organization, many people tend to feel insecure since they might sense that technology will change their jobs and position in the organization.<sup>4</sup>

### *Processes*

A process is ‘a systematic method of handling activities’.<sup>5</sup> It involves the activities, tasks, flow of work, and policies.

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<sup>4</sup> Schultheis R. and Sumner M. 1998. *Management Information Systems: The Manager's View*. U.S.A.: Irwin-McGraw-Hill. p. 602

<sup>5</sup> Stoner, J.A.F., Freeman, R.E. and Gilbert, D.R. Jr. 1995. *Management. Sixth Edition*. New Jersey: Prentice-Hall International, Inc. p.10.



## *Strategy*

Binding all the above elements is the overall strategy of the organization. Not just in the areas of core business that the organization is in, but also in the areas of human resource development and customer relationship management. Given the practical constraints in resources, human resource and finance, strategies must be prioritized and focus on early wins which are aligned to the long-term strategies. This is to ensure that there are visible outcomes in the shortest possible duration to reinforce commitments from all stakeholders and test the strategies.

## **Integration - Interfacing**

The American Heritage Dictionary of the English Language defines “interface” in terms of computer science as ‘the point of interaction or communication between a computer and any other entity, such as a printer or human operator’.<sup>6</sup>

Interface can be defined as “the link between either a user or a program and the computer. Also a connection between two or more systems or subsystems.”<sup>7</sup>

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<sup>6</sup> The American Heritage<sup>®</sup> Dictionary of the English Language: Fourth Edition. 2000. [www.bartleby.com/61/57/I0185700.html](http://www.bartleby.com/61/57/I0185700.html)

<sup>7</sup> Schultheis and Sumner. p. 708.

## **Challenges in implementing TAFIS**

The challenges facing TAFIS implementation are numerous, but not insurmountable. These challenges can be grouped into five areas. They are:

- Program and project management
- Commitment, control and consistent
- Robust and scaleable architectures
- Work integration
- Management of stakeholders expectations

It was envisaged that with the size of the TAFIS project i.e., involving over fifty to one hundred personnel, having standards in approach, documentation and communication are critical success factors. The impact of variation in multiplicity of skills, background and experiences of the personnel are kept to the minimum. A common approach is essential to have a common understanding of the project objectives and outcomes expected.

An issue governance structure was put in place to manage issues. Two working committees, each focusing on regulatory and technical matters, were established within the Ministry of Finance (MOF). These committees report to the steering committee chaired by the Permanent Secretary of the MOF.

At the project level project team meetings are held weekly and a working committee meeting every fortnight with senior MOF and IT Department stakeholders. There is total commitment to ensure TAFIS is a success at all levels.

TAFIS is using a browser-based architecture. A key challenge will be the adoption and scaling of TAFIS to use the Internet as the carrier of its transactions. Until such time when the security aspect of the Internet is secured will we be moving into it.

Having taken a holistic approach to develop TAFIS, a key impact will be the integration of the work activities from the various teams organized along skills disciplines. The effort must be coordinated such that interdependencies between the change management, technical and application teams are established and impact of any changes in the work schedule and completion date agreed. The end-to-end approach taken minimizes redoing of work and minimize duplication of interaction with users during the data gathering stage.

Managing the expectations of key stakeholders is key to TAFIS success so far. Understanding their expectations and vision for TAFIS have assisted in obtaining their continued buying and commitment to the project success. It is necessary to ensure there is consistent and regular feedback to the stakeholders to establish the implications of key decision on issues and direction taken by the project teams. These stakeholders include senior government officials, users and in TAFIS case, the public at large.

In terms of managing change, TAFIS managers used several strategies to minimize the problem of resistance to change of stakeholders which include:

- Finding the best possible ways to motivate people's behavior and attitudes to make the change work.

- Get as much feedback from the individuals as possible regarding the problems they encountered in the workplace so that they will acknowledge and understand the need for changes.
- Communicate with those who are directly involved in the change process.<sup>8</sup>

## **CONCLUSION**

In summary, the TAFIS project is proceeding as planned. But as it scale up to the entire government the management of the expectations of the expanded stakeholders population is more crucial than ever.

We are confident of achieving the goal we set for TAFIS i.e., ultimately to enable the change in mindset of the civil service to be customer oriented with high degree of financial accountability and responsibility.

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<sup>8</sup>Schultheis and Sumner. p.103

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