

# SQUARED Methods

Harness the power of technology...



## White Paper Series **Integration Strategy Approach**

Frequently, questions like these arise at many organizations:

- ◆ Which technology should we use for this integration project?
- ◆ What are available technology platform options for implementing this integration capability? Do we have a strategic tool for that?
- ◆ When should we use ESB instead of ETL?
- ◆ Should we use MQ for transferring files between applications?
- ◆ What is the strategic role of platform ABC?
- ◆ Can we implement a tactical point-to-point integration solution to build a bridge between applications A and B?
- ◆ And many more...

### **What this white paper is about?**

Integration landscape across an organization is often very complex, with numerous point-to-point interfaces. This Integration Strategy approach outlines the essential components of an effective Integration Strategy to bring much desired consistency to the integration practices

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Questions like these arise due to lack of clear guidance on the strategic technology platforms and clear direction regarding the expected use of these platforms in organizations for addressing Integration requirements. The impact of this: there is no consistency in how and when we use certain platforms to implement integration needs. There is a clear gap that exists. The best way to fill this gap is by creating an Integration Strategy!!

### Set Vision and clear Objectives for Integration Strategy

It is critical to have a clear vision for the Integration Strategy. It can be as simple as “To clearly establish roles of key strategic integration platforms and bring standardization and consistency in use of integration platforms”. Once the vision is set, you need to have clear objectives for the integration strategy that are relevant to your organization. Some examples of good objectives:

- Minimize the bespoke siloed point-to-point interfaces that complicate technology landscape and makes it costly and difficult to manage/support/understand
- Promote use of standard/strategic platforms for specific integration needs through common/agreed understanding of their role in integration
- Understand what platforms are available from integration standpoint and establish clear role for each strategic platform
- Clearly establish which tactical alternatives can be considered and under what scenario

Objectives like these set the framework of key principles that drive the integration strategy.



**“We are planning to use vendor ABC’s Integration platform because we use their Application”**

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At SQUARED Methods, we believe that the Integration Strategy has a few standard building blocks:

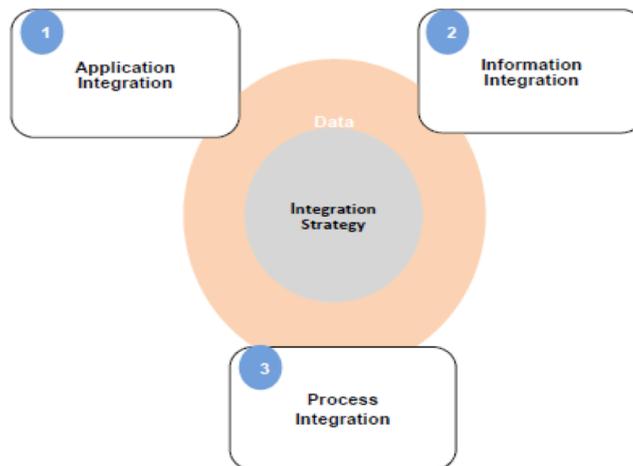
### Strategic & Tactical Integration Objectives

As mentioned above, clear objectives drive the integration strategy and provide a framework that binds the strategy to be relevant for your business.

### Integration Categories and Guiding Principles

Typically, there are four integration categories; Process Integration, Application Integration, Information Integration and Data Integration; which is common across all other categories, as data is critical for any type of integration.

Here's a summary view of typical Integration Categories:



Once you have these categories defined, it is important to create a matrix of typical integration scenarios and design patterns that are best suited to address that scenario.

For example, for Application Integration:

Integration Category	Integration Scenario	Design Pattern	Key Integration Characteristics
Application Integration	Replicating transactions across multiple systems/applications	Message Broker (MoM, Publish & Subscribe) or	- Potentially multiple producers & consumers

### Platform Inventory

Now that we have established the integration categories and have defined some integration scenarios and design patterns, let's create an inventory of integration

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platforms to establish a role for each platform in integration.

Integration Category	Integration Purpose	Integration Platform	Role in Integration Architecture	Strategic Product	Version	Tactical Product(s); if any
Data Integration	Data Replication	Oracle Golden Gate	Real Time or near real time Data Replication	Golden Gate	11g	
	Disaster Recovery	Oracle Data Guard	Replication for Disaster Recovery purposes	Oracle Data Guard	11gR2	
	Data Extraction, Transformations and Load	Informatica ETL	Data Integration platform for high volume, high transformation feeds	Informatica PowerCenter	9.1	Cognos Data Manager 10.1  MS SSIS 2008 r2, MS SSIS 2005 for MS SQL Server integration

As you can see, this is starting to develop into a good little approach to define integration category, define scenario and design pattern, and establish a strategic platform for your organization.

In addition to this tabular format, you can develop a decision tree structure for each integration category to support decision-making process. IT makes selection of a specific integration platform for integration needs much easier.

**Once we have the key building block established, how does this Integration Strategy help projects to establish Integration approach for specific integration needs?**

Essentially, the goal is to help project teams establish a quick initial view on which technology platform(s) are best suited to address specific integration requirements based on three steps:

**Step 1:** Determine the integration category (or categories). Multiple integration categories may apply to address specific integration requirements

**Step 2:** Determine the appropriate design pattern (or patterns) that are best suited to specific integration scenario(s)

**Step 3:** Determine the most suitable technology platform(s) to address specific integration requirements based on the Integration category and design patterns(s)

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### Governance Considerations

Once the strategy is ready and approved by appropriate governance body in your organization, it is critical to put in place appropriate governance strategy to ensure that the Integration Strategy is communicated to appropriate groups within your organization; such as the Project Management Office or PMO. Projects must adhere to the Integration Strategy and appropriate governance body must approve any deviation from the strategy.

If your organization has an Enterprise Architecture (EA) practice, then appropriate design review gates must assess projects for compliance to Integration Strategy as the designs are developed and reviewed by architects.

### SUMMARY

Enterprise Integration Strategy is an important vehicle to bring standardization and consistency to use of strategic integration capabilities available for any organization. Adherence to integration strategy will allow your organization to maximize the value derived from our Integration assets via:

- Consistent use of technology platforms across the organization
- Maximum re-use of our integration capabilities, and integration assets
- Fully understood and agreed role of integration platforms for addressing integration needs
- Approved set of reference architectures and policy documents to support the strategic platforms, and
- A collaborative governance strategy to enforce adherence to the integration strategy

