Information Builders

Driving Better Business Performance With a Practical Data Strategy

A White Paper

WebFOCUS iWay Software Omni

Table of Contents

Executive Summary

What an embarrassment of riches: We have so much data that we can't properly govern it, can't find the time or energy to share it, and sometimes don't even know where it all lives.

It's overwhelming to so many people that Gartner predicts "by 2017, 33 percent of Fortune 100 organizations will experience an information crisis due to their inability to effectively value, govern, and trust their enterprise information."[1]

While we frequently hear people say that data is one of their company's most valuable assets, it's rarer to see them developing data strategies alongside their business strategies. Perhaps they have fewer models to follow; perhaps it's harder to wrap their heads around; perhaps they see it as IT's problem.

Since you're reading this paper, you already know that data strategy is important: You're coping with change, searching for better ways to manage and use data, or just trying to think about data more strategically. The question is how to translate your growing understanding of the problem into solutions that will work in your company.

This isn't a one-size-fits-all situation, and this paper doesn't present a data strategy. Rather, it will help you define one of your own, tailored to your organization, based on key considerations derived from our experience with tens of thousands of customers.

As with most business strategies, your data strategy will involve **people**, **processes**, and **technology**, and those vary widely from one company to the next.

Moreover, since we're dealing with data strategy specifically, we need to look at how to organize, govern, and share data to achieve business ends.

In fact, we can consider the strategy development process as the alignment of people, process, and technology with the **organization**, **governance**, and **sharing** of data – a matrix of requirements that, while far-reaching, is simple enough to be understood, communicated, and managed effectively by people with the vision and tenacity to accomplish it.

This paper will focus on this three-by-three alignment of resources, ranging from the development of internal champions and business sponsors to the technology needed to communicate your strategy's success:

		Data and Information Requirements		
		Organize	**Govern**	**Share**
Business Strategy Requirements	**People**			
	Process			
	Technology			

[1] Gartner Press Release, "Gartner Says One Third of Fortune 100 Organizations Will Face an Information Crisis by 2017," February 2014, http://www.gartner.com/newsroom/id/2672515.

Thinking Strategically

People have a confusing time talking about strategy. Let's start with what strategy is **not**.

It's not a vision. A vision tells you what you want to be. If you run a pizza restaurant chain, your vision might be something like, "We want to serve the best-tasting pizza, consistently, nationwide." Strategy guides you toward achieving your vision.

It's not a set of goals. Goals tell you what to measure. Your pizza chain might have a goal of increasing sales in premium markets by 30 percent. Strategy helps you determine which goals will help you fulfill your vision.

It's not a set of plans. Plans initiate a sequence of events to help you achieve your vision. Your pizza chain's plans might increase budgets and initiate marketing campaigns in target markets. Strategy provides direction for the plans you make.

It's not a set of tactics. Tactics are the means by which you respond to specific conditions. Your pizza chain might use tactics such as buying local produce for a "local fresh" campaign. Strategy helps you identify which tactics will be most fruitful.

Definitions vary, but for our purposes, think of a strategy as **a set of policies designed to help achieve a vision**.

Initial Strategic Considerations

Some people think strategy is only executed at the highest levels of an organization. That's not true. Policies at the high level can be tactical, and policies at the low level can be strategic for that part of the organization. While considering the strategy you will develop, think about what you can control and what aspects of it affect the vision of the company.

They also think that strategy is something that gets executed through a centralized body. That's not necessarily the case, although it can be. For some companies, centralized decision-making bodies control the direction of all lines of business, usually sacrificing some flexibility to avoid redundancy and align goals among departments. Others rely on a federated decision-making model, generally giving up the benefits of centralization in favor of greater flexibility and adaptability. These are strategic choices; neither is inherently right or wrong, and both should be evaluated in the light of executive or stockholder vision for the company.

You might be in a position to execute authoritatively on a company-wide strategy. If so, think big – but be prepared to start smaller if that makes more sense for your organization. On the other hand, you may not be in a position of great authority. If so, be ready to start small – but consider how your lower-level initiatives can play out at the highest levels, or influence other groups to start thinking more strategically along with you.

Regardless of where you are or who will be executing your strategy, start by thinking about what's important to you, other members of the business, and leadership. Understanding what's important – and how it affects your future course – is the core of strategy. In fact, aligning with

other parts of the business is so vital that we will return to it repeatedly in this paper, as well as the communication necessary to ensure that your strategy is adopted and carried out.

At some point, you'll want to stop thinking about strategy in the abstract and start developing concrete policies. Many people do so by employing the aforementioned framework of people, processes, and technology. Very often, the strategic policies you choose will flow from the need to organize your resources based on this framework.

It will be easier to see how this works with an example, and studying one of the greatest strategic minds of the past few centuries provides this insight.

An Example of Strategy at Work: Napoleon Bonaparte

If you're thinking of Napoleon as the guy who lost at Waterloo, stop. When he started losing, it was in part because he wasn't being flexible enough with his strategy.

Napoleon started with humble beginnings and nearly took over all of Europe. We don't need to approve of his vision or goals – certainly his opponents didn't – but we can learn a great deal from a man who was acknowledged by everyone as a master strategist.

Napoleon's military strategy could be simply stated in five principles or policies:

- The primary objective is the destruction of the enemy's armies or the main army
- All forces must concentrate on the task of attaining the objective
- Operations must be designed to surprise and confuse the enemy
- Every effort must be made to render the enemy helpless through the severance of his lines of supply, communications, and retreat
- The security of French forces must be guarded to prevent surprise

Each of these policies has implications. For instance, his focus on the main army led Napoleon to use as little force as possible against non-critical objectives. Other generals divided their armies more finely, trying to handle too many objectives at once. Napoleon trusted that secondary matters would fall into place if the main objectives were handled effectively.

One could wish that corporate strategies were so focused.

It's also worth noting that these particular policies weren't designed to create a long-range strategy for conquering Europe, but ensured that he would be able to take advantage of opportunities as needed, one battle at a time. Both long-range and opportunistic strategies are valid and may be applied to different situations.

Napoleon's strategy can also be analyzed using the framework of people, processes, and technology.

People – He managed his foot soldiers, cavalry, and line officers extremely well in tactical situations, and ensured that he had sufficient staff officers to plan and communicate with his units.

Processes – He ensured that his people knew how to execute rapid troop movements, disrupt communication lines, and protect French forces.

Technology – He made excellent use of new technologies, such as horse-drawn artillery and reduced-cost small arms, which helped him do more with the troops he had.

Although a detailed study of Napoleon's development and implementation of strategy is beyond the scope of this paper, we can see that simplicity and ease of communication are as essential as the strategic points themselves.

Elements of Data Strategy

We're dealing with data strategy, so we need to focus on what we do with data to affect our business. One can think about data using the framework of organize, govern, and share.

Organize – How do we structure data to ensure that it meets company needs?

Govern – How do we manage data to ensure its suitability for its purpose?

Share – How do we provide data in ways that systems or people can apply it to business problems?

When we overlay people, processes, and technology with organize, govern, and share, we get a three-by-three matrix that can help us organize our thoughts about what our strategy ought to be, how we align it with the business, and how to communicate it.

	Organize	Govern	Share
People	How do we structure data to ensure that it meets company needs?	How do we manage data to ensure its suitability for its purpose?	How do we provide data in ways that systems or people can apply it to business problems?
Process			
Technology			

People and Data Strategy

While a vision aligns people in the abstract, a data strategy aligns people in concrete ways: across departments, at higher and lower levels of the organization, and – perhaps most importantly of all – across IT and business units.

As you identify principles to include in your data strategy, ask "Does this policy help people see mutually reinforcing goals?"

If you can avoid making a divisive policy – one that places the good of one group over another – do so. State a policy that has inherent balance.

Generally speaking, your goal in communicating data strategy is to show people the win-win they'll receive by following the appropriate policies. Even though data strategy sounds like a technical topic, it's really not: It's the data component of a business strategy. When we think about how important people are to our data strategy – i.e., the "people" in people, processes, and technology – we realize the importance of communicating effectively with them.

As with business strategy, keep your communication simple and direct – more like marketing than technical documentation. Communication needs to relate to the people you're working with, and as such, should focus on things like team building, developing skills, and sharing information you need for success.

Case Study: Ford Motor Company

Ford doesn't own the dealerships that do its warranty claims, but it was able to influence them to create a culture of quality – and save tens of millions of dollars annually in the process – just by pushing information out of a back room and into the garages.

For many years, Ford had been collecting data on warranty repair work: Who did it, what model it was on, was rework needed after an initial repair, and so on. Green-bar reports piled the information high for a few people at corporate headquarters, but that information was never valuable in its own right.

Ford saw an opportunity to share this data with the dealerships, showing them how they compare with warranty claims compared to other dealerships. Nobody likes to see their performance rated lower than someone else's, and in this case the dealerships had a financial incentive to improve quality: Dealers that showed less rework attracted more customers and got paid more by Ford for warranty repair work.

As a result of the financial incentive, dealers who compared badly with their peers improved training and quality controls – driving a culture of quality in organizations over which Ford didn't even have direct control.

People-Related Considerations

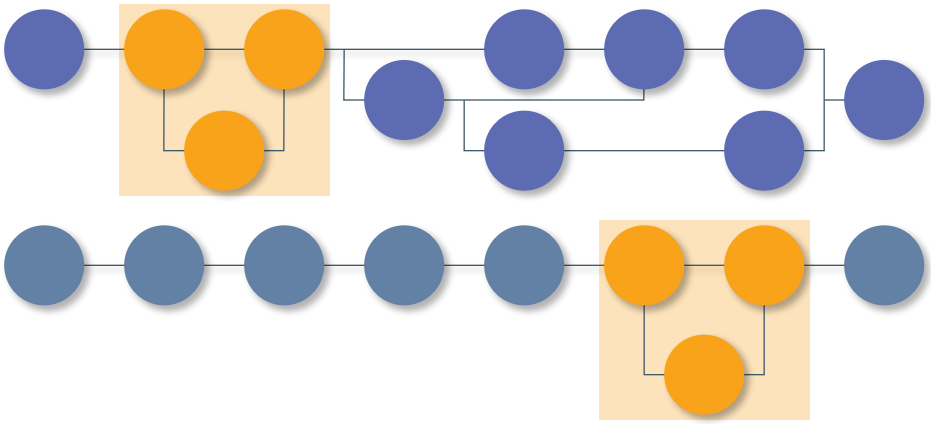
While thinking about what your data strategy should do or encompass, consider some of the following ideas as they relate to the organize, govern, and share aspect of your people:

- **Organize**
  - Stay focused on business pain that sponsors may be feeling.
  - If there's no business sponsor, are you sure your project is strategic?
  - If there's no business sponsor, run.
- **Govern**
  - Think about what processes and policies are in place now: Are people following them? If not, why not? Do they matter? Who is supposed to enforce them?
  - Can you name the person who feels the business pain from poor data governance? If you can't, maybe the data you're focused on isn't strategic.
- **Share**
  - Sometimes you share information as part of your normal business (e.g., a bank shares information about client accounts with a client). This type of sharing helps your business.
  - Sometimes you share information about how well your data strategy is working (e.g., a bank shares information about the client self-correction process and the resulting efficiencies). This type of sharing helps your champions promote your data strategy.

Processes and Data Strategy

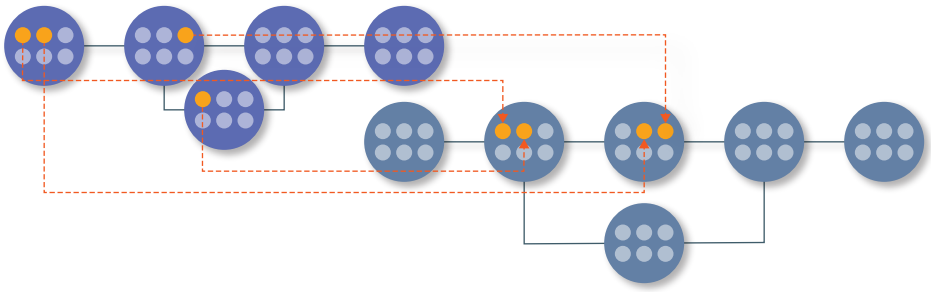
When we talk about aligning processes and communicating about them in data strategy, we generally are talking about two things (your mileage may vary). The first is redundancy of data-focused modules across different business processes.

In the first case, there are business processes that execute the same data-oriented processes in different ways. Examples might include collecting, validating, or analyzing customer information, which might be done on your website and at your contact center. In a sense, these processes are "pre-aligned" because they do the same thing, but they also create multiple entry points, validation rules, and sometimes conflate different kinds of information. For example, a website might be fine with collecting a nickname, while the contact center may collect the formal name because it's what appears on a credit card.



Different processes often collect and manage the same information in roughly the same way.

The second case is the collection, validation, or analysis of data in different ways by different processes, but where the data elements are the same. For example, while a order entry system might capture all of the information needed about a customer, a marketing system might use "progressive profiling" to capture bits of the customer data at different times.



Sometimes different processes collect and manage the same data, but in different ways.

This is only one example: The data elements might be anything from part numbers to account types to customer information.

In both cases, good alignment across processes requires identifying and rationalizing data collection, validation, and analysis activities. Developers might call this process "refactoring." Regardless of the term used, this allows you to make changes in one place to affect all processes that use data in a given way.

Ideally, you can also adapt processes to use people and computer systems in the ways best suited to them as well: Computers are excellent at repetitious activities that require no judgment, while people get bored and make mistakes in those circumstances; people are excellent (well, at least compared to computers) at making judgment calls based on circumstances, while computers will simply follow whatever rules you put in front of them. If people are making decisions about exceptions while computers are processing millions of records according to specific rules, you're probably aligning your people and processes correctly.

These processes ultimately let you standardize your approach to data governance and usage. While not glamorous, improved processes lead to better standards, which can be measured and shown to users, which, in turn, can increase trust in data. When data is trusted, it gets shared – and wider sharing of data generally increases its value.

Better data standards lead to more trust and usage of data, which can drive higher return on data investments.

Savvy businesspeople generally don't trust black-box processes, so your goal should focus on the transparency needed to make them trust the data you want them to use. If you find out what they need to accomplish, and what metrics will help them trust your data to achieve business goals, you'll be able to share the progress towards those metrics on an ongoing basis. Example metrics include the percentage of customer records that are complete and have been validated within the last six months, or the percentage of mailing addresses that are valid for marketing campaigns.

Similarly, process documentation is important to help people ensure how to generate, store, handle, and use data. Since people often don't read or follow extensive documentation, it might be best to create higher-level documentation that shows what you're trying to accomplish, so that people who are working with the data understand their role in creating the right outcomes.

Case Study: RainTree Oncology Services

RainTree Oncology Services assists their member practices in achieving better and more cost-effective treatment of oncology patients while creating new streams of revenue for community oncology practices. Their lifeblood is data, which means their processes are critical to their success.

They collect information about treatments and outcomes from a variety of sources, including doctors' offices, laboratories, and hospitals. Their collection process must be correct, and they must process the data in a way to perform certain tasks, such as de-identification of patient information, to ensure that nobody sees from whom their information comes.

They also need to demonstrate the value of their information to the people who use the results for such functions as operational practice support, pharmaceutical sales, oncologist decision support, and value-based care decision-making.

Knowing how the data is handled helps assure everyone involved that the member information is handled correctly, and that the information they're getting is suitable for its purposes and of the best possible quality.

Process-Related Considerations

Consider the following aspects about how you organize, govern, and share information as part of your processes:

- **Organize**
  - What are your current requirements – and possible future ones?
  - Can your data be handled in real time and in batch? Do you need to integrate multiple data sources and/or third-party data?
  - Do you need to augment existing processes with new processes to capture and organize all of the information that you need?
- **Govern**
  - Why are certain governance processes being circumvented?
  - What can you measure to increase trust in data?
  - Can the business and IT work together to improve trust, processes, and remediation?
- **Share**
  - What information do you collect, and who else could benefit from it? Include different types of employees, partners, suppliers, and regulators.
  - Can you "manage by reputation" by showing people how well or how poorly they stack up to their peers in comparative benchmarks?

Information Technology and Data Strategy

In some ways, technology is the least important part of creating a data strategy; it tends to fall out of the people and process sections of the strategy.

Fortunately, it's also an area with a certain amount of best-practice knowledge already developed.

Alignment, for example, is easier to get through normal requirements-gathering techniques. Functional requirements for many different projects lead to requirements for technical capabilities and skills. If those technical requirements are compared to an inventory of existing technology, companies can determine where gaps and strengths are – where they'll need to hire people (consultants or full time) or buy hardware and software.

If organizations do this kind of requirements gathering on a project-by-project basis, it won't be strategic. Improving the analysis to look for gaps and strengths across the organization, however, can lead to improvements in procurement, training, and talent acquisition, provided the process doesn't become too bureaucratic.

Communication becomes important to share knowledge about technology and skills. One form of communication is relatively easy, because it's more "outbound" – commentary, rather than collaboration. This includes detailing what technologies and training are available in the company now, what is available in the market, and the differences between the two. Information about successful projects, the technologies they used, and best (or worst) practices can also help.

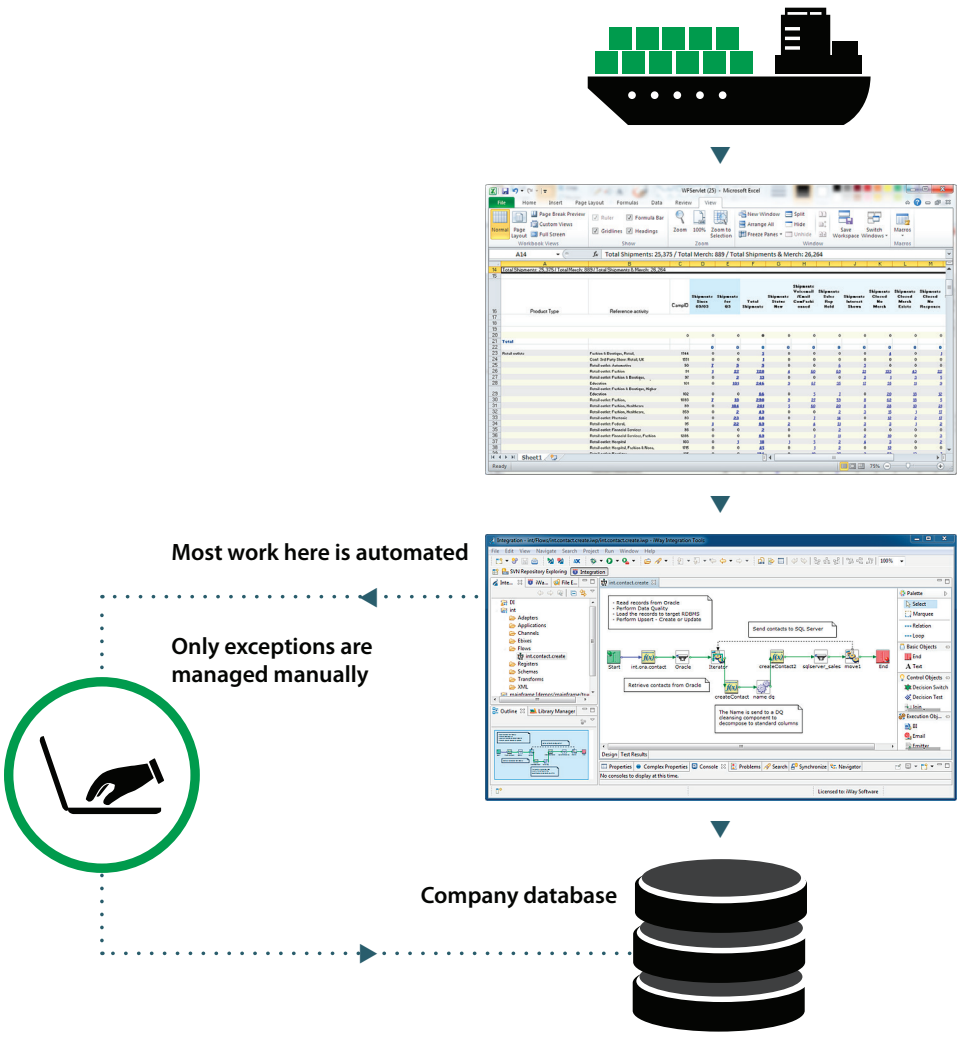
Harder, but of potentially greater importance, is the collaborative effort to help shape future technology usage and buying patterns. Ideally, organizations would discuss not only what they're intending to buy, but what other requirements other groups might have, so that there would be a higher likelihood of buying systems that fit more than one project. This could improve purchasing power, skill set sharing, and other efficiencies in leveraging the technologies across all business units.

Case Study: Journal of Commerce

The Journal of Commerce (JOC), a company that captures manifest and other shipping data and sells it to third parties, changed its effectiveness dramatically by moving to new technology.

The company originally found it difficult to keep up with the volume of data because each manifest, in the form of a spreadsheet, had to be individually reviewed by an analyst before being entered into a database. When people do repetitive work that requires no judgment, that's often a sign that information technology can help streamline business processes.

That's what JOC found in this case. It was able to codify many of the analysts' rules into business logic that could be executed as part of an automated business process. Where there were exceptions – tough cases that were hard to define or would require judgment – they were pushed off to analysts for handling. As a result, the database gets updated more quickly, and analysts are making business-level judgments where needed.



JOC improved results by going from a manual to an automated process.

Technology-Related Considerations

With technology, adoption may be the number one issue to keep in mind. If IT acquires a technology and it isn't used – for whatever reason – there's no benefit derived from it. The following considerations place special emphasis on what increases or prevents adoption.

- **Organize**
  - What's your culture: buy, build? Centralized, decentralized? Outsource, in-house?
  - What's the cost of the people who will run the technology?
  - Do you have the ability to deal with latency requirements? Volumes? Flexibility? Licensing?

- **Govern**
  - Are particular technology groups, such as a data warehousing, CRM, or ERP team, driving data quality implementations? How does that affect governance, by (for instance) focusing only on centralized data, batch windows, or a particular vendor stack?
  - What governance makes a difference to your business people? If you can identify metrics that would be important to them, can you also identify the technologies that would collect, contain, or display those metrics?
- **Share**
  - How do you share the impact of the change that comes from your data strategy?
  - How do you share the business data in a way that improves decision-making and relationships?
  - Can you give line workers, executives, managers, and partners the dashboards, metrics, or analytics they need?
  - Does your technology scale to share this information with as many people as possible?

Other Considerations For Developing Your Strategy

Although we've discussed a great number of considerations regarding data strategy, you still don't have one yet. The hard work of determining what policies to adopt at your company remains.

It might be useful at this juncture to take all of the considerations so far and create a strategy for dealing with them. There are many, and you will need to drill down into all or most of them. However, four key principles may help you understand how to evaluate them and the issues they raise:

1. Look at many successful projects to see what's consistent across them; likewise with unsuccessful projects
2. When considering elements of your data strategy, evaluate them based on your particular culture, not in the abstract
3. Focus on improving things you can control, and containing those you can't
4. Continually revisit your strategic principles in the light of changing circumstances

About Information Builders

Organizations that are data-driven and people-focused know Information Builders. We help our customers use data in innovative ways to grow business, achieve missions, and build relationships.

Our software solutions for business intelligence (BI) and analytics, integration, and data integrity provide a continuum of capabilities to meet your exact needs:

- **Integration** – The iWay Integration Suite includes real-time and batch integration for data, applications, and B2B, providing interoperability between disparate systems and data for faster time to market on IT and business initiatives
- **Integrity** – The iWay Data Quality and Master Data Management (MDM) Suites provide comprehensive, real-time management of any information from any source. Regardless of where data resides, iWay can seamlessly cleanse and enrich it, ensuring a consistent and accurate view of data from every interaction point
- **Intelligence** – The WebFOCUS BI and analytics platform delivers rich, consumable, interactive information to the widest range of employees, managers, analysts, partners, and customers – actionable intelligence for everyone

These "3i's" fit well with many different approaches to organizing, governing, and sharing information. The result is strategic differentiation driven by more effective use of data assets.

If we can help with your data strategy, we'd love to continue this discussion in a way that's tailored to your needs. Contact Me

To learn more about Information Builders and how we can help improve your data platform and strategy, visit informationbuilders.com/go/datastrategy.

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