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Determining How and Where Innovation Fits Into Your IT Strategy

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IT is now an integral part of how public- and private-sector enterprises innovate. However, innovation work in IT often suffers from four major problems:

1. There is often an implicit assumption that innovation using IT necessarily requires the application of new technologies. In fact, it's often where the technology is applied that creates the innovation, not the technology itself. Therefore, embedding innovation considerations in the demand side of IT strategy (how the business wins and how IT contributes) is at least as important as the supply side (how IT sets up its assets and capabilities to contribute).
2. Related to this, IT's agenda tends to focus on the technology and architecture, rather than how decisions are made (the control side), and the human capital that IT needs to innovate on an ongoing basis.
3. Much IT-driven innovation focuses only on making business processes more efficient and effective, not on innovating the customer offering, the work of management or the business model. Further process automation has limited value; business model change does not.
4. Innovation is often seen as an add-on, separate from the rest of IT work, as opposed to embedded in everything the IT organization does. Innovation should not be seen as a separate function, but a lens through which to view all aspects of IT and, indeed, the whole enterprise.

In order to significantly step up IT's contribution to innovation, CIOs must address these four problems. This research addresses the question of how and where innovation fits in an IT strategy, based on Gartner's IT Strategy Template, and includes examples.

Key Findings

- Innovation in IT is strongest when it widens the focus from emerging technology applications to where innovation will have the biggest impact.
- Innovation in IT strategy should be woven throughout the strategy, not tacked on as a separate section.
- There are opportunities throughout Gartner's IT Strategy Template to embed innovation.

Recommendations

- Focus innovation on where it matters most. This means understanding where innovation is likely to have the greatest impact.

- Weave innovation through the demand, control and supply sides of IT strategy to get a complete picture of IT's contribution through innovation.
- Consider all types of innovation. IT is best known for process innovation, but business model, frontline and management innovation will likely be the more valuable contributions from IT over the long term.

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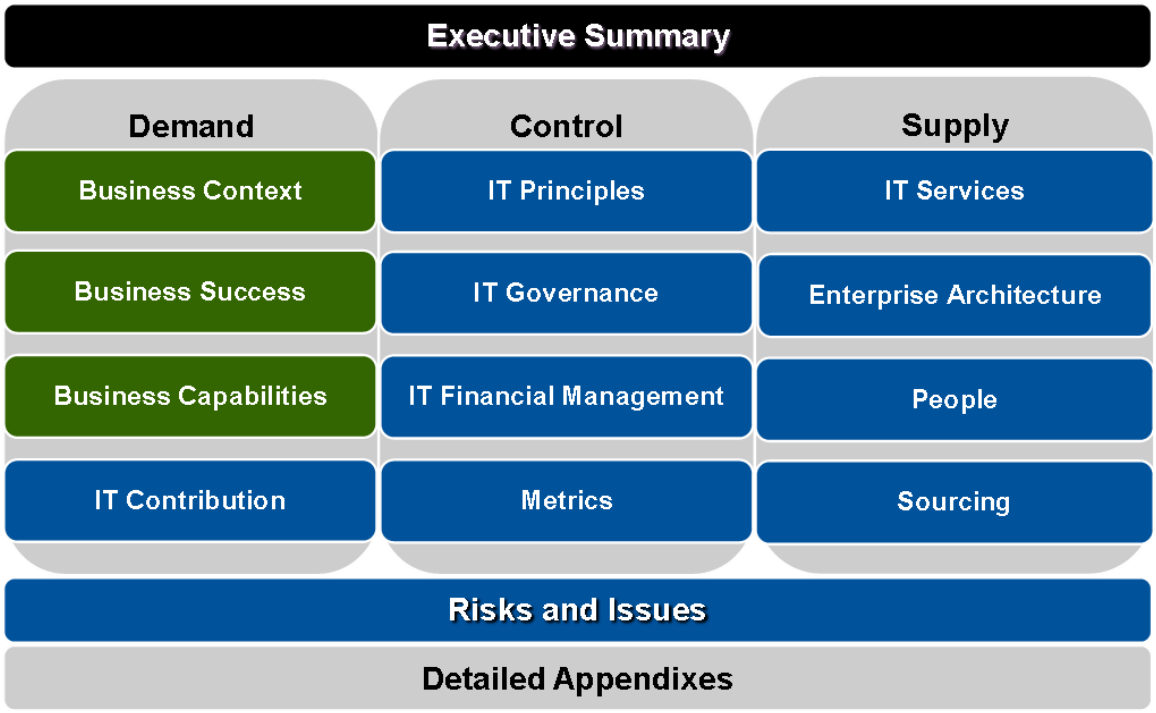
ANALYSIS

Gartner has written extensively on IT strategy: what the IT strategy should contain, how to create it and how to communicate it (see Note 1 for a brief summary of that research). The Recommended Reading section provides additional sources of research with more details.

Figure 1 summarizes the components of a great IT strategy.

Figure 1. A Complete IT Strategy Addresses Demand, Control and Supply



Source: Gartner (August 2010)

A great IT strategy is "outside in" — it starts with how the business will win, and how IT will contribute to that success, with this thread running throughout the whole IT strategy. In order to address IT's four problems with innovation, IT must ensure that innovation is embedded throughout the IT strategy. The rest of this research offers guidance on how to ensure innovation is embedded in each section of the IT strategy.

1.0 Demand

The demand section of the IT strategy contains four sections: business context, business success, business capabilities and IT contribution.

In general, the demand side drives the creation of an innovation perimeter. That is, demand dictates where IT should focus its innovation efforts so that innovation is strategically relevant. "Innovation perimeter" is defined as:

> An innovation perimeter demarcates where an innovation effort will — and will not — focus, based on what is most important to enterprise success. For example, some IT organizations delineate their innovation perimeter to focus on a particularly strategic customer group (say,

a retailer that is focused on new mothers as a principal growth market), a particularly strategic market (say, emerging markets in Asia/Pacific), or a particular type of growth (say, by demarcating the innovation effort to focus on high-growth ideas only, rather than continuous improvements). The demarcation of the innovation perimeter should reflect what is most strategically valuable and should direct the innovation effort, rather than letting innovation go totally unchecked.

In the following sections, we describe how innovation should fit into each of the four areas of demand.

1.1 Business Context

Business context describes where the business will play, and the external forces and trends at work. For example, is there likely to be more government regulation? A greater focus on corporate social responsibility and sustainability? A wave of consolidation in the industry? An array of new competition from emerging markets? Table 1 defines this section and provides some real-world examples.

Table 1. Business Context — Definition and Sample Actions

Demand	Definition/Action	Example 1	Example 2
Business context	Definition: • Describes the major trends and forces affecting the enterprise, including technology. Also, describes what business the enterprise is in.	Retailer: • Trend of growth in emerging markets. • Trend toward more mobile commerce.	Mining company: • Global consolidation. • Focus on finding more-sustainable practices in mining.
How to promote and protect innovation	Action: • Reveals persistent business needs and IT trends that innovation efforts should target.	• Focus on lightweight technological innovation that is appropriate for emerging markets. • Start conducting strategic experiments with mobile commerce platforms.	• Use IT to improve merger and acquisition (M&A) practices. • Focus on how technology can increase enterprise sustainability.

Source: Gartner (August 2010)

1.2 Business Success

The business success section of demand drives the creation of the innovation perimeter, showing where IT should focus its innovation efforts — and, crucially, where it should not. This section includes the high-level aspiration (sometimes called "mission" or "vision") of the enterprise. For example, "We aim to be the world's No. 1 mining company," or "The City of XYZ aims to be the world's most tourist-friendly destination" (see Table 2).

Table 2. Business Success — Definition and Sample Actions

Demand	Definition/Action	Example 1	Example 2
Business success	Definition: • A clear expression of the strategic posture of the business: why customers will buy from us and/or why we will win. • In the public sector: why we will succeed in growing our mission.	Law enforcement agency: • "We will win by arming our officers with the best information to prevent and solve crimes."	Retailer: • "Customers buy from us because we guarantee the lowest possible price."
How to promote and protect innovation	Action: • Create/refine the innovation perimeter.	• Focus on frontline-information-related ideas.	• Focus the perimeter on innovations that lower costs. • Leave out high-cost innovations (for now).

Source: Gartner (August 2010)

1.3 Business Capabilities

The business capability section of the strategy describes the specific capabilities required to make the statement in the previous business success section real: What will it take to support the stated strategic posture of the firm?

IT must refine the innovation perimeter, focusing on each of the business capabilities required to make success possible. IT must ask, "How can IT innovate to support this capability?" (see Table 3).

Table 3. Business Capabilities — Definition and Sample Actions

Demand	Definition/Action	Example 1	Example 2
Business capabilities	Definition: • A description of the business capabilities required for the business to succeed.	Law enforcement agency: • Ability to analyze large volumes of data in real time. • Plug-and-play ability to interface with other public- and private-sector bodies.	Retailer: • Low-latency supply chain capability. • Ability to cross-dock; no inventory storage required.
How to promote and protect innovation	Action: • Identify and prototype emerging technologies that could meet the capability's need.	• Focus emerging technology and experiments on how to enhance real-time data analysis and capture. • Prioritize strategic experiments for plug-and-play environments.	• Focus innovation efforts on process innovation and predictive sourcing analysis.

Source: Gartner (August 2010)

1.4 IT Contribution

The IT contribution section describes how IT will contribute to enterprise success. In this case, the contribution should showcase IT's contribution to innovating the business where it matters most, according to what was laid out in the previous sections (see Table 4).

Table 4. IT Contribution — Definition and Sample Actions

Demand	Definition/Action	Example 1	Example 2
IT contribution	Definition: • An explanation of how IT capabilities and plans will contribute to business success. This is the IT equivalent of the enterprise mission and vision statements.	Law enforcement agency: • "IT will contribute by providing the best, most accurate information to officers on the street, in real time."	Retailer: • "IT will contribute by using technology to lower overall enterprise costs (for example, through aggressive automation and standardization)."
How to promote and protect innovation	Action: • Ensure IT contribution explicitly includes the ability to try new things and new ideas to maximize contribution.	• Explicitly include a portfolio of high-, medium- and low-risk projects for information-focused innovation.	• Ensure IT is encouraged to identify opportunities for efficiency, and try out possible solutions.

Source: Gartner (August 2010)

2.0 Control

Control is the second of three sections in a complete IT strategy. Control focuses on the management mechanisms that will be used to ensure strategic behaviors and decisions. Put another way, control is what ensures that the strategy filters through to the day-to-day operations of the IT department.

The control side must support and encourage innovation — for example, by dedicating space for innovation in meetings, ensuring that the innovation contribution shows up in the way people are measured, and possibly, generating innovation resources in IT's financial model (for example, by including an innovation margin in chargeback processes).

The following sections describe how innovation should fit into each of the four areas of control.

2.1 IT Principles

IT principles are a critical decision support tool, providing guidelines on how IT should approach significant decisions in areas such as whether to centralize or decentralize the operating model, how much to standardize the architecture, how much risk the enterprise should take on, where IT-intensive investments should be directed, and so on. Put another way, the principles distill what is most important to IT, in order to ensure it is providing a focused, maximum contribution to business success.

At a minimum, innovation should be reflected in the IT principles of the IT organization to ensure that these do not inadvertently exclude or stifle it. For example, you might include a principle about people always having the ability to reserve time to innovate.

In addition, more-formal IT innovation efforts should include a set of associated innovation principles that align with the overall principles, showing how and where innovation fits (see Table 5).

Table 5. IT Principles — Definition and Sample Actions

Control	Definition/Action	Example 1	Example 2
IT principles	Definition: • A high-level set of five to 10 principles that guide day-to-day IT decision making and reflect the IT contribution.	Travel company with a customer intimacy advantage: • "Initiatives that improve the end-customer experience will be prioritized."	Insurer that is protecting its agility advantage: • "IT will not enter into any vendor relationship that cannot be undone in under 36 months."
How to promote and protect innovation	Action: • Create associated innovation principles, aligned with IT principles. • Check that IT principles encourage innovation.	• Every innovation will be measured according to external customer uptake and adoption. • IT employees will be rewarded for trying, regardless of the success or failure of their experiments.	• Innovation will filter out ideas/vendors requiring partnerships of more than 36 months to succeed. • IT will include in its project portfolio a selection of higher-risk projects, to allow for experimentation where it may contribute to business success.

Source: Gartner (August 2010)

2.2 IT Governance

For each type of IT-related decision, this section explains who will have input and who will make the decision. It also explains what tools and mechanisms will be used in making, communicating and enforcing the decision.

In terms of innovation, it is important for the governance section to reflect a holistic value model in investment prioritization and benefits realization domains. This ensures that more strategic or innovative value is captured, as well as that immediate financial value is measured. In addition, governance mechanisms must have authority over all the scarce resources needed for change, not just IT. Otherwise, IT may be ready to innovate, but the rest of the necessary resources (such as sponsors and business process experts) may be constrained or focused on other things (see Table 6).

Table 6. IT Governance — Definition and Sample Actions

Control	Definition/Action	Example 1	Example 2
IT governance	Definition: • An explanation of how IT decisions will be made.	Retailer whose customers buy for the lowest price: • "The IT steering committee owns all decisions related to suppliers; procurement owns the negotiation of supplier agreements."	Insurer that is protecting its agility advantage: • "Decisions about investment prioritization will encompass long-term agility measures as well as short-term ROI analyses."

Control	Definition/Action	Example 1	Example 2
How to promote and protect innovation	Action: • Ensure the steering committee meeting's agenda includes innovation.	• Ensure steering committee meetings are not only about operations, but also for asking questions about where innovation is most important and how IT can help.	• Ensure investment prioritization models capture a portfolio of tactical and strategic/innovative investments, and are not restricted to short-term financial analyses only.

Source: Gartner (August 2010)

2.3 IT Financial Management

This section explains whether the IT organization is operating as a cost center, profit center or investment center. It also explains how funds will be supplied to IT — for example, whether discretionary IT project funds will be separate from overall business project funds — and whether chargeback will be used for recovering IT costs, and if so, what type of chargeback.

In terms of innovation, it is critical to ensure there is funding in the financial model for strategic experiments and innovation initiatives.

In addition, IT should measure run, grow and transform ratios to keep track of the investments in the transform category. Also, IT should measure the percentage of revenue increase and cost reduction that comes from IT-intensive innovations (see Table 7).

Table 7. IT Financial Management — Definition and Sample Actions

Control	Definition/Action	Example 1	Example 2
IT financial management	Definition: • An explanation of the sources, uses and control of funds for IT.	Retailer: • IT charges back all IT services to the business, using a cost-plus model in which extra funds will be reinvested in IT.	Mining company: • IT will operate using a zero-profit financial model.
How to promote and protect innovation	Action: • Ensure funds are earmarked for innovation activities in the financial model.	• Ensure that a portion of these funds — between 50% and 100% — is directed at innovation efforts.	• Focus on a financial model in which all innovation projects are funded by a sponsoring business unit.

Source: Gartner (August 2010)

2.4 IT Metrics

This section summarizes the metrics used to measure the IT organization's performance. Ideally, the number of high-level IT metrics will be small (four or five) and will map directly to a similarly small number of business success metrics.

In terms of innovation, IT should ensure that innovation measurement is taken into account. For example, IT should measure the percentage of revenue increase and cost reduction that comes from IT-intensive innovations (see Table 8).

Table 8. IT Metrics — Definition and Sample Actions

Control	Definition/Action	Example 1	Example 2
IT metrics	Definition: • A description of how the success of IT will be measured.	Law enforcement agency: • IT will measure success according to how effective it can make its officers, which will be a measure of the accuracy and speed of information provision.	Travel company with a customer intimacy focus: • IT will measure success according to how productive and effective it can make its frontline employees.
How to promote and protect innovation	Action: • Ensure that innovation is part of performance measures and is recognized and rewarded.	• Monitor the number of ideas, prototypes and experiments focused on this improvement. • Measure the innovation's reach — is the effort reaching all the intended recipients?	• Measure the number and variety of ideas, prototypes and resulting innovations that improve frontline employee performance. • Measure how well IT is incorporating innovation learning and improvements.

Source: Gartner (August 2010)

3.0 Supply

The final piece in a complete IT strategy is supply. This section, including four subsections, addresses the question of how IT should evolve its capability to execute on the business demand. The supply side must actually generate the innovation. The most important aspect of supply is, therefore, the type of people IT engages and how their time is managed.

Important to note in supply is the fact that IT is but one of the scarce resources required for change and innovation to work. An IT strategy can easily founder when other scarce resources, such as innovation sponsors, are constrained. Therefore, the IT supply strategy must at least be consistent with the supply of other scarce resources for innovation, and should explicitly acknowledge that such resources (specifically named, as appropriate to particular strategies) are required and assumed to be available.

The following sections describe where innovation fits in each of the four areas of supply.

3.1 IT Services

This section includes a high-level list of IT services provided to the business. Services should be described and grouped in a way that would make sense to a senior executive. It should also summarize the approach to service management (including standards such as ITIL or ISO 20000).

For IT to encourage innovation, IT services should focus on any nonstandard choices — for example, the inclusion of business process design or change services, information management services, or services that form part of the end-customer product (as opposed to services for employees only — see Table 9).

Table 9. IT Services — Definition and Sample Actions

Supply	Definition/Action	Example 1	Example 2
IT services	Definition: • A high-level list of IT services.	Law enforcement agency: • Information management services.	Travel company with a customer intimacy focus: • Services that form part of the end-customer product.
How to promote and protect innovation	Action: • Ensure innovation is "designed in" to services, by ensuring learning and strategic experiments are part of service formulation and delivery.	• Conduct strategic experiments with field officers, using new ideas or technologies.	• Ensure there is a customer feedback mechanism that can inform and improve subsequent innovations and experiments.

Source: Gartner (August 2010)

3.2 Enterprise Architecture

This section presents a high-level overview of the as-is and to-be enterprise architecture, as well as the benefits of moving from as-is to to-be. It should include business process, information, application and infrastructure layers.

Making IT more innovative means tackling complexity in the architecture. Reducing architectural complexity unleashes innovation. IT should ensure the architecture is designed to support rather than defeat innovation (see Table 10).

Table 10. Enterprise Architecture — Definition and Sample Actions

Supply	Definition/Action	Example 1	Example 2
Enterprise architecture	Definition: • A clarification of how business processes, IT assets and services are designed to support current and future business models.	Retailer with an efficiency focus: • The architecture will drive toward standard, off-the-shelf technologies and will standardize processes as much as possible.	Insurer with an agility focus: • The architecture at the front end will be customizable, in order to quickly meet customer demands and remain agile.
How to ensure that innovation fits	Action: • Ensure innovation is "designed in" to the architectural approach by including the isolated testing of emerging technologies.	• Allow innovation to deviate from standard enterprise architecture where it helps the business to win.	• Focus innovation on lightweight customizable apps. • Ensure maximum user control and open channels to encourage innovation at the edge.

Source: Gartner (August 2010)

3.3 People

This section summarizes the as-is and to-be human capital management (HCM) picture, including the current and needed IT organizational structure (that is, the organization chart), and the current and needed skill inventories.

The people aspect of IT strategy is arguably the most important piece of the supply section of IT strategy that ensures innovation is baked in. Innovation should be reflected in the choice of people, the work they are expected to perform and the way their time is managed.

IT should ensure that the to-be skill mix includes key innovation skills — such as creative thinking, the ability to conduct strategic experiments, a business-focused outlook, and familiarity with innovation concepts and tools.

IT should also ensure that people are managed so that they have the time and inclination to innovate. This means instituting management practices around how people should divide their time between ongoing operations and future value creation. It also means ensuring that performance evaluations reflect a focus on IT's contribution to business innovation (see Table 11).

Table 11. People — Definition and Sample Actions

Supply	Definition/Action	Example 1	Example 2
People	Definition: • A summary of the key HCM aspects of the IT strategy.	Mining company with a sustainability focus: • To-be HCM state will include green IT and other sustainability skills.	Travel company with a customer intimacy strategy: • The to-be HCM state will pursue people with customer service experience, possibly outside the domain of IT.
How to promote and protect innovation	Action: • Ensure people's time and performance evaluations allow for and reward innovation.	• Check that innovation in sustainability is part of a people management focus.	• Ensure innovation in customer service is part of all IT personnel evaluations.

Source: Gartner (August 2010)

3.4 Sourcing

The sourcing section explains the approach to sourcing, along with the rationale behind it. In addition, any important relationships (for example, a long-term contract with a provider of support services) should be highlighted, along with relevant details such as the relationship's scope and duration.

It is important to highlight how sourcing partners are expected to participate in and contribute to the innovation activities of IT. This means including innovation in all major sourcing contracts (for more on how to do this, see the Recommended Reading section) and evaluating sourcing partners according to their ability to help IT to innovate.

Innovation is always more difficult to achieve when external partners are part of the game. Therefore, it is useful to create an innovation charter, which outlines where IT will and will not innovate, the scope and approach of the innovation effort, and how success will be defined and measured. For more on how to create a charter, see the Recommended Reading section. See Table 12.

Table 12. Sourcing — Definition and Sample Actions

Supply	Definition/Action	Example 1	Example 2
Sourcing	Definition: • A summary of the approach to sourcing and any important partner relationships.	Retailer with an efficiency focus: • Sourcing contracts should include metrics to measure the cost reduction contribution of the provider.	Mining company with a sustainability focus: • "We will work exclusively with providers that have a demonstrated sustainability record."
How to promote and protect innovation	Action: • Ensure all partners are explicitly tasked to innovate in areas of most importance to the business.	• Include reward clauses for supplier-led innovations that reduce costs.	• Ensure contract clauses specifically request innovation contributions that increase sustainability.

Source: Gartner (August 2010)

4.0 Conclusion

IT should address each of the three sections — demand, control and supply — of the IT strategy to determine how innovation fits in. In general, IT should ensure that each major section of the strategy is linked to the opportunities for innovation directly. Rather than tacking on a separate innovation section to the strategy, IT should weave innovation into each section to make it a real part of the operational day-to-day activities:

- In demand, address *where* innovation should be focused — where can you apply IT to help innovate the business?
- In control, address *how* innovation can be harnessed — how can you make sure good decisions get made with innovation in mind?
- In supply, address *who* should be innovating and *what* they should be doing — how can you make sure you have the right people and practices to protect and advance innovation in the business where it matters most (that is, where it contributes most to enterprise success)?

In general, weaving innovation into IT strategy means more than addressing each section of the strategy. Success requires adopting a set of common values that underpin and encourage innovation in IT. For innovation to flourish, it is important to promote values such as the protection of risk-takers and those who try new things. There must be recognition that, for innovation, trying is more valuable than succeeding in the short term, and that embracing unknown terrain is to be encouraged.

CIOs and IT directors who are able to personify and transmit these values will have greater success at delivering innovation through their IT strategies.

RECOMMENDED READING

"IT Strategy: A CIO Success Kit"

"IT Strategy Template"

"What a World-Class IT Innovation Charter Should Contain and Why You Need One"

"Combine Push and Pull Innovation to Achieve IT Innovation Success"

"Mastering the Paradoxes of Innovation"

"Keeping the Innovation Dream Alive During the Economic Downturn"

"How to Balance Outsourcing Excellence, Innovation and Cost"

"Define Your Expectations of Innovation in Outsourcing Deals"

"Innovation in IT Services: A Working Definition and Key Characteristics"

"Characteristics of the Innovative IT Services Provider"

Note 1
IT Strategy

The very first thing to know about strategy is that great IT strategies are outside-in, not inside-out. That is, they begin with an understanding of the business strategy — how the business intends to compete or succeed in its mission — and then they move backward to how IT can help.

A great IT strategy, therefore, starts with business demand and answers three questions, as clearly and succinctly as possible:

- How does the business win, and how can IT help?
- How can we ensure strategic behaviors and decisions?
- How should the IT capability evolve to meet demand?

The first question is centered on demand. Demand is about how the business wins — what are the enterprise's critical differentiators or sources of competitive advantage? In the public sector, the question explores the focus and capabilities that best advance the department's or agency's mission. For example, "We will win by being the most customer-centric company in the world," or "We will win by aggressively acquiring companies and integrating them faster than the competition."

Many enterprises in the public sector and private sector have articulated a vision or mission or business strategy, and the demand section seeks to discern from those statements exactly how the enterprise will succeed. The demand section concludes with how IT will contribute to enterprise success.

The second question is about control. This middle section of the IT strategy focuses on the management mechanisms that must be in place to ensure that the demand — the vision and mission and how the enterprise wins — filters through to the operational day-to-day activities and management mechanisms. For example, it includes a summary of the governance strategy of IT — who owns which decisions, and how those decisions are enforced and communicated.

The third question is centered on supply. This final part of the IT strategy focuses on the as-is and to-be states of IT to showcase how IT needs to evolve to execute against what has been articulated as most important. For example, it explores what changes this will mean for people management, the sourcing strategy and the architecture.

See Figure 1 for a summary of the contents of a great IT strategy.

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