iHealth Innovation Solutions
IT Application Strategy

iHealth Innovative Solutions

Better Strategy

Contents

Executive Summary

New market forces are compelling IT organizations to rethink their current IT applications portfolio to take advantage of emerging trends

This whitepaper describes the challenges associated with defining a strong IT application strategy and how to enable IT organizations to define and manage an appropriate strategy. iHealth recommends an explicit IT Strategy be developed for all organizations. In particular, a well managed IT Application Strategy is critical to organizations needing to strengthen the partnership between the business and IT. Additionally, new market forces are compelling IT organizations to rethink their current IT applications portfolio to take advantage of emerging trends. The challenge is knowing how to build and manage an IT Application Strategy effectively.

iHealth's experience, frameworks, tools, and best practices libraries can assist organizations seeking to achieve advantage in a changing environment.

iHealth's Point of View on IT Application Strategy

Why Organizations Need an IT Strategy in General

While the focus of this whitepaper is on IT Application Strategy definition and management, it's important to understand how that fits within other critical elements of business and IT strategies within an organization.

Most organizations have an explicit business strategy, which sets the company's direction and scope and guides business decisions. An IT Strategy is the structure that aligns IT with the business strategy and confirms the money being spent on IT by the organization is being used to the best outcomes to meet business goals. It helps answer the questions:

■ How can we be sure our current spend on IT is effective?

■ What IT enabled capabilities are required to deliver the business strategy?

■ What IT investments should be made to deliver the business strategy?

■ Have we got the right organizational structure and governance to deliver IT solutions to our organization?

■ Does our governance of IT projects deliver value?

Leading organizations leverage a clearly stated IT strategy that identifies how IT will be delivered. It should be dynamic and adapt to changes in business strategy. When an organization does not have a clear IT Strategy, it becomes evident in several ways, including:

■ High levels of dissatisfaction with IT service across the organization. At times, these may be unjustified though the existence of a strategy provides at least a high-level means of measuring performance against objectives.

■ Areas of the organization have assembled their own "shadow" IT group. This may be symptomatic of low IT service levels. The result is often high cost, unsupportable systems, which are not integrated.

- IT is not working to a clear business driven directive. This can be the result of not having a directive, or of not following instructions.

- Project benefits not being realized. This can be caused by inadequate project governance by business and /or IT.

- Within the organization, many systems with transactional data exist, yet the organization has little usable management information. This often includes business system redundancy and no single source of the truth.

- The strategic benefits of IT are unclear. Without a clear IT Strategy, which is agreed to by the business as a whole, it is impossible to gauge whether IT is delivering strategically. This is not perceived as a problem when organizations are meeting their targets, but becomes critical when organizations are put under pressure and turn to IT for help.

- An IT Strategy is in place yet is not aligned to the business strategy. This can be the worst situation of all, where the business strategy has changed, yet the IT Strategy has not. The result can be misdirected investment, draining resources that should be deployed differently. This can be compounded by complacency in thinking that the IT Strategy is correct.

How IT Application Strategy Relates to Other IT Strategies

As discussed, having a well aligned IT strategy is critical. However, the term "IT Strategy" can be used to cover multiple types of efforts. This leads to confusion. Figure 1 - Overlap of IT Strategies shows a variety of strategy types related to IT. Each needs to be understood in order to recognize the differences in the answers they provide and the focus of the required strategy work.

Overlap of IT Strategies

Commonality exists between strategies in that each address people, process, technology and related elements. Each has a slightly different overall objective yet touches on a common core associated with running IT. In addition, the terms shown above are sometimes used interchangably for the same set of activities.

For purposes of this whitepaper we are focused on IT Application Strategy definition and management. That said, the concepts shared can also be applied to the other types of strategies.

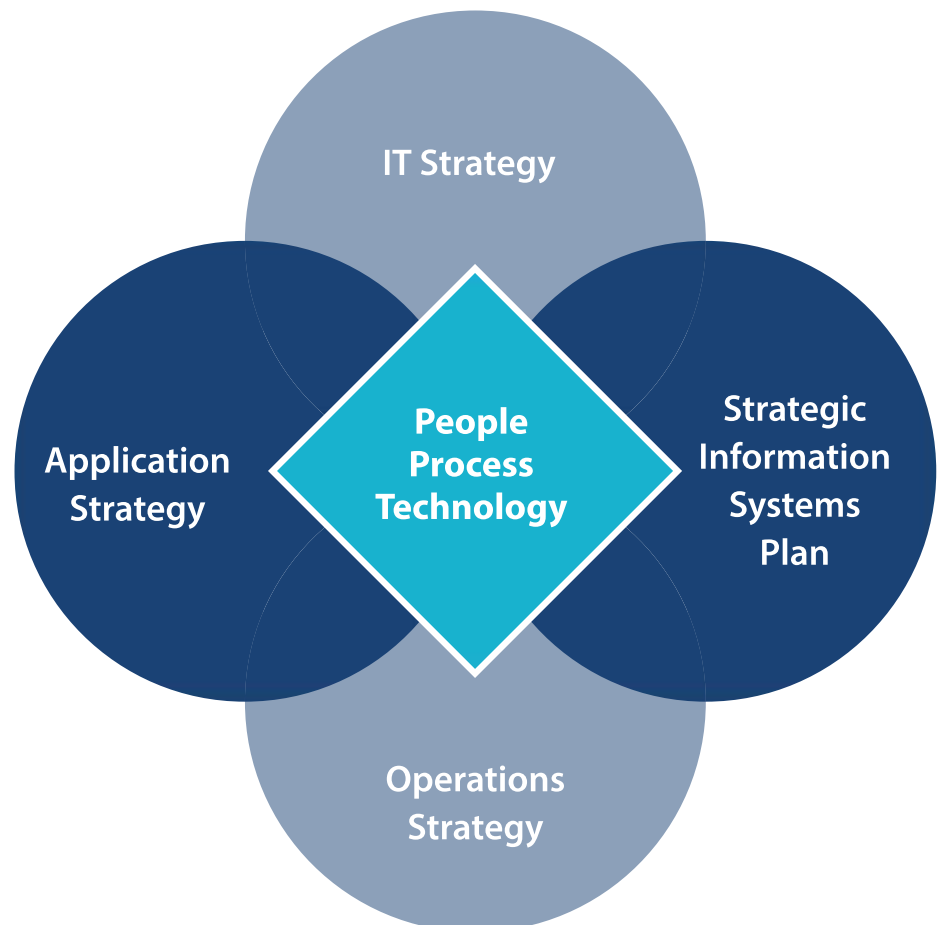When developing an IT Application Strategy, the key questions to be addressed include the following:

Figure 1 - Overlap of IT Strategies

Key Questions Answered in IT Application Strategy

Our approach to working through getting the answers to the questions above and then defining the strategy for achieving a future-state vision will be covered in the sections that follow.

Applications

- Do we have the right applications and/or platforms to support the business processes?
- What is the right set of applications to meet our business needs?
- Should we build or buy, use a single platform or select best of breed applications?
- What is our strategy for application upgrades and patch management cycles?
- What is our strategy for driving consistency across applications

Infrastructure

- What is the best infrastructure/hosting/cloud model for our applications?

Applications

- What is the right approach to develop or implement applications?
- What are the people skills needed to develop, maintain and support the business applications and are we organized correctly?
- What is the right approach to manage business applications?
- What is the right business applications governance model?

Our approach to working through getting the answers to the questions above and then defining the strategy for achieving a future-state vision will be covered in the sections that follow.

Why Initiate an IT Applications Strategy?

Several big transitions are occurring in the IT world and each of these shifts is affecting not only how we work but how we live. The growth of diverse mobile device platforms and the need to connect them to business applications and networks, wherever customers and employees are located, is already underway. These shifts are forcing businesses to rethink their IT infrastructure to accommodate the new mobility and content as well as customers and partners.

In addition, the emergence of consumer markets as the primary driver of information technology innovation is seen as a major IT industry shift. The growing tendency for new information technology to emerge first in the consumer market and then spread into business and government organizations is forcing organizations to re-think their IT Application Strategy.

Finally, simplicity, manageability and adaptability are becoming an advantage that organizations, both public and private, are embracing. Technology should not be a barrier to transforming business; it should be an enabler of change. The demand for simplicity, manageability and adaptability is growing and together these qualities will change how companies organize, as well as how they buy and use technology.

These changes mean the organizations must adapt or risk falling behind the technology curve and face rising costs and business rigidity.

Getting Started with an IT Applications Strategy

Managing an IT Applications Strategy

Having a well-defined and executed IT Application Strategy is a critical component of IT organizational success. In this section we will discuss what it takes to define and manage an effective strategy on an ongoing basis.

Strategic decisions differ from typical operational decisions. Whereas operational decisions relate to the daily functioning of an organization, strategic decisions have a higher degree of uncertainty, incomplete information, complexity, innovation, interdependencies, judgment, and perceptual moldable-structure. As a result, strategy definition is a continuing lifecycle that keeps the strategy "living." IT Application Strategies need to meet new technical opportunities or threats as well as the demands of changes to the business overall.
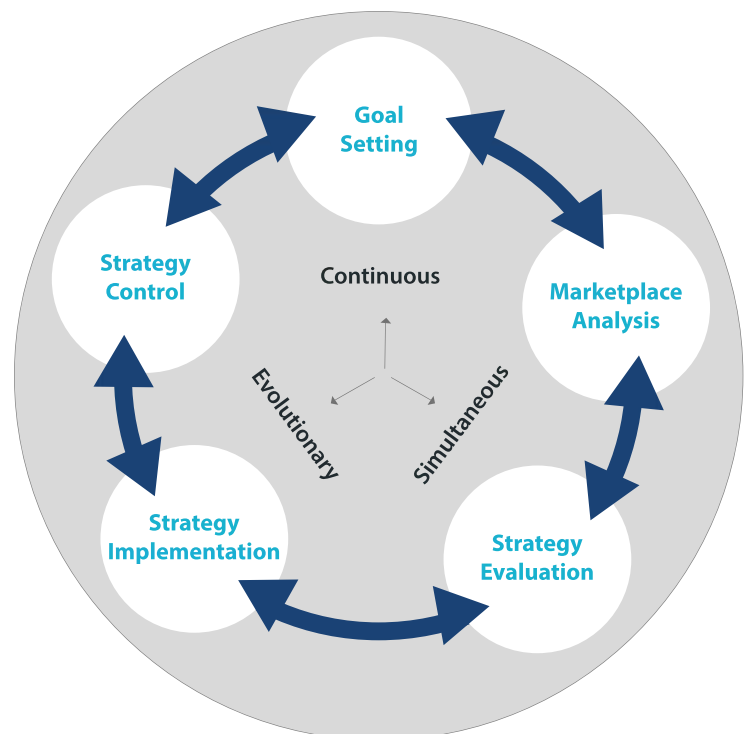
Figure 2 - Managing the IT Application Strategy

The model shown in Figure 2 consistes of five integrated steps. These steps do not exist in isolation. In fact, while they may appear to be sequential, they are, in many cases, decisionmaking activities that are done simultaneously and continuously. Most IT leaders and their delegated representatives are involved in all these processes in an ongoing viable organization. Nevertheless, in order to describe our approach to defining and managing strategy, we will divide them into five interrelated practices: goal setting, competitive environment analysis, strategy evaluation, strategy implementation, and strategic control.

Guiding Principles & Goal Setting. Goal setting is a management technique designed to provide both general and specific directions and targets for which the organization can aim. In the case of defining an IT Application Strategy, this starts with developing an overall vision for the business applications and the supporting organization. This is done through developing a mission, a set of feasible goals and specific objectives for use by the internal stakeholders (e.g. executives, subject matter experts) of the organization. Moreover, the external stakeholders (e.g. customers, shareholders) can be made more comfortable by knowing the organization has a clear and well thought out vision for business applications and supporting processes. This is the step in the process that must be accomplished in order to promote an overall strategic direction.

Marketplace Analysis. The second part of the model concerns recognizing and analyzing important aspects of the environment and identifying competing organizations. The three processes of analyzing the environment, the competition, and your capabilities are conducted here. Many times an organization may find itself involved in this activity before setting goals. Several proven methods can be used to conduct these analyses, both internal and external to the respective organization.

Strategy Evaluation. In a logical, evolutionary way, after goals have been set and the competitive environment analyzed, an in-depth analysis of alternative strategic choices must be accomplished. In this function, types of strategies are explored along with criteria for evaluating them.

Comparison methods are surveyed in conjunction with problems in their use. In this step a strategist verifies the soundness of a strategy by measuring:

- Consistency - Goals and policies are mutually consistent

- Alignment - Adaptive to changes in the environment

- Advantage - Provides a competitive advantage

- Feasibility - It is possible with available resources

Strategy Implementation. This step of the model is, arguably, the one that consumes the most of an IT leader's time. While CIOs spend a great deal of time on strategic planning, day-to-day activities of trying to promote a strategy occupy a majority of their time. The importance of implementation and its increased emphasis in strategic management cannot be understated.

Strategic Control. In this last part of the model, strategic control or governing is the focus. This step highlights how an integrated model works best. For example, how can a strategy be evaluated and controlled if well-accepted goals are not in place, performance measured, and changes made? Hence, the need for feedback loops promoting the continuous and simultaneous nature of strategic management functions is well established.

Establishing Guiding Principles

Figure 3 - IT Application Strategy Guiding Principles

As discussed in section 3.1, a critical part of IT Application Strategy development is to define guiding principles. The guiding principles serve as a foundation for building and growing an organization. For example, below are three common guiding principles many IT organizations strive to achieve.

- **Planned.** Avoid ad-hoc, top-down directives that can conflict with the IT Application Strategy. All initiatives on the roadmap should be planned, analyzed, implemented, and measured.

- **Flexible.** The IT Application Strategy must be able to adapt to a changing business nvironment and the associated pressures. This flexibility needs to be managed with a difined governance process.

- **Simple.** Having a simplified application architecture affords businesses greater flexibility to adapt to change. Horizontal processes and information flow can support the entire business rather than discrete processes, allowing a business to adapt to change in real time.

As part of defining overall guiding principles, IT leaders have complex challenges to consider. IT leaders leaders face increasing pressures to deliver faster, cheaper, better solutions and have increasing demands for scalability, flexibility and ROI on technology investments. Additionally, the challenge of aligning IT and business goals to improve operational performance and contain costs requires building responsiveness and agility into the organization through IT. As discussed, a solid IT Application Strategy can mitigate these forces. This requires a strong alignment between all invested stakeholders.

To mitigate these risks, IT and business leaders need to determine what type of an IT organization they want to enable and then to set expectations and plan accordingly. To help illustrate different types of IT organizations, iHealth has modeled an approach for interaction between Business and IT. Figure 4 – Model of Interaction provides a high-level depiction of this model. In addition, a description of each of the quadrants in the model is provided below.
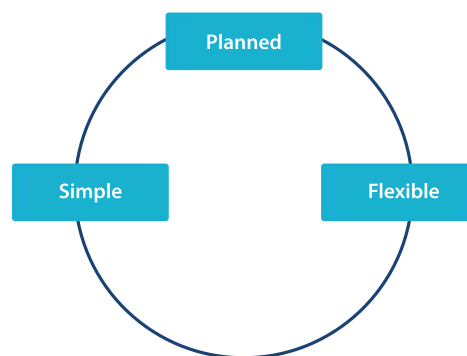
Business Partner – IT as a Change Supporter. IT is a partner with the business and a trusted advisor on IT related issues. IT requirements and technology decisions are uncovered and made jointly with the business. IT focuses on supporting business change by implementing proven approaches and technology. IT planning emphasis is on aligning systems and solutions with business needs.
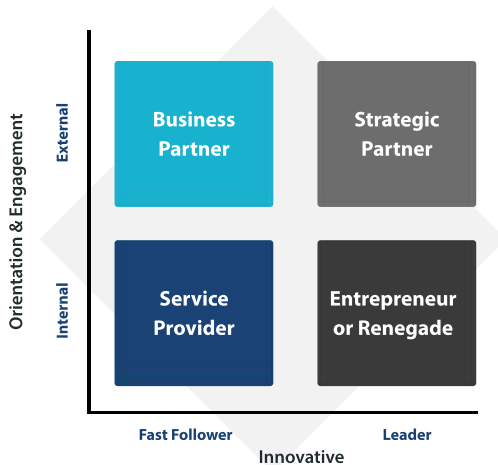
Service Provider – IT as Change Reactor. IT is a servant waiting for direction. The business drives IT requirements and often selects and makes technology decisions. IT reacts to change highlighted by the business. IT focuses on providing great service to the business by implementing, maintaining and supporting systems well. IT planning emphasis is on IT operational excellence exclusively.

Strategic Partner - IT as Change Driver. IT is an equal and strategic partner with the business and a trusted advisor on all issues. IT drives business change by highlighting how new technologies and approaches can improve business performance. IT participates in developing business strategy. IT planning emphasis is on driving business performance improvements through the implementation of technology.

Entrepreneur or Renegade - IT as Change Enabler. IT is an engineer focused on technology. IT drives requirements and technology decisions based strictly on its own criteria (architecture, cost, performance, operations ease) sometimes with little concern for the business impacts. IT enables Business change through the adoption of leading edge technology and solutions. IT planning emphasis is on prototyping and adopting new technologies.

Each of the different IT organizational types outlined above can be appropriate for a given company. As part of defining an IT Application Strategy, IT leaders needs to work with the business leadership to define the type of organization to be enabled and then set expectations and plans accordingly.

Leveraging an IT Application Strategy Framework

iHealth has created an IT Application Strategy Framework and assessment tool designed to facilitate and accelerate the process of defining an executable IT Applications strategy. This framework is designed to provide a rapid assessment of the health and effectiveness of the organization and to help begin the process of defining the future-state vision.
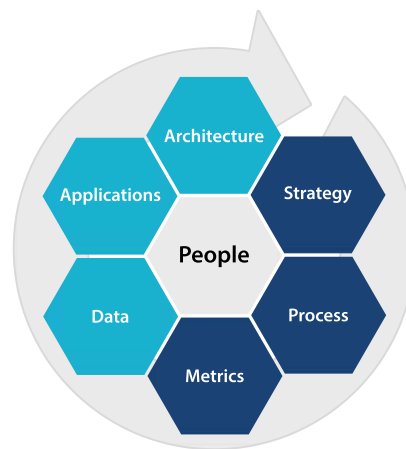

Figure 5 – IT Application Strategy Framework

illustrates the dimensions that are considered while conducting an IT Application Strategy effort. Below is an overview of each dimension within this framework and what needs to be evaluated and defined in each.

Strategy Includes a review of existing business themes, objectives, initiatives and plans and how they align to the the existing IT strategy (if one exists). Some of the items we evalute include the completeness and effectiveness of the existing strategy, how well it describes the high-level linchpins, whether it is aligned with the business strategy and whether solutions are in place to support the strategy. The assessment considers existing strategies and relates these goals to the needs for IT solutions.

Process Evaluation of the existing processes and methodologies related to IT operations. The Process assessment includes areas such as IT methodology, policies and procedures, data governance, program/project management, prioritization/initiative rationalization, change management, and standards and guidelines. The assessement considers if these core processes are effective, efficient and include a review of existing business processes and their use of metrics and analytics specifically to measure the performance of IT. This also includes a review of existing methodologies for IT solution implementation. Areas for improvement and recommendations for specific IT operations, IT governance process and methodology changes are identified.

Metrics. KPIs used by the organization to measure business performance, including the use and acceptance as well as the ability to meausure KPIs. Metrics drive the need for reporting and ultimately the data integration and management to support measurement. The assessment includes identification of the key metrics used to measure IT objectives; evaluation of the metrics against best practices, and recommendations for metric(s) categories that should be considered in a future vision.

People. The organizations and people that develop and support business technologies as well as the groups and stakeholders using IT solutions. This includes organization alignment, roles and responsiblities, accountability, skills and leadership . Some of the items we evelute include "Are the human and organizational capital appropriate?" The assessment includes a review of people and culture to support IT, as well as a review and recommended business and IT roles in the end-to-end "IT Supply Chain."

Data. A review of existing data assets and their ability to meet requirements of the business is conducted. Before deploying changes to business applications, an IT organization need to understand the current data landscape. This includes the following components: data integration needs and challenges, timeliness of data availability and delivery, visibility, accessibility of data sources, master data definition, metadata and systems of record. Some of the items we evalute include "Is the data required to support decision-making

available?" The assessment includes a review of existing data assets contrasted against business requirements, identification of key functional areas of data, identification of data gaps, and evaluation of the data in terms of sourcing, granularity, timing, processing, structure, quality, security and metadata. Recommendations for data architecture improvements are identified based on the

Applications. The tools and solutions in place to support business processes, information management, and Business Intelligence are evaluated. This includes understanding the applications in place that are data sources and are required for data integration. Areas for consideration include accessiblity, breadth of function, organization alignment, functionality, ownership and useability. The assessment includes creating an inventory of

existing applications , identifying functional gaps and recommending potential solutions. An understanding of both the current inventory of applications as well as identification of functional gaps is critical in planning for additional technology investestments.

Architecture. Evaluation of the IT infrastructure, including hardware & software, with a focus on the overall footprint, distribution of processes, performance, scalability, integration, and management. Some of the items we evalute include "Is the correct infrastructure in place to support the business needs?" The assessment includes an understanding of current architecture components in addition to the idenfication of gaps, limitations and opportunities. Areas of focus include functionality, integration, performance, reliability, security and systems management.

The IT Applications Strategy Approach

iHealth has a proven approach and methodology for developing an IT Applications Strategy shown in Figure 7 - IT Application Strategy Approach. It leverages an effective and proven framework based on iHealth's experience and IT best practices that are critical to IT success. The following diagram depicts our IT Applications Strategy Approach.
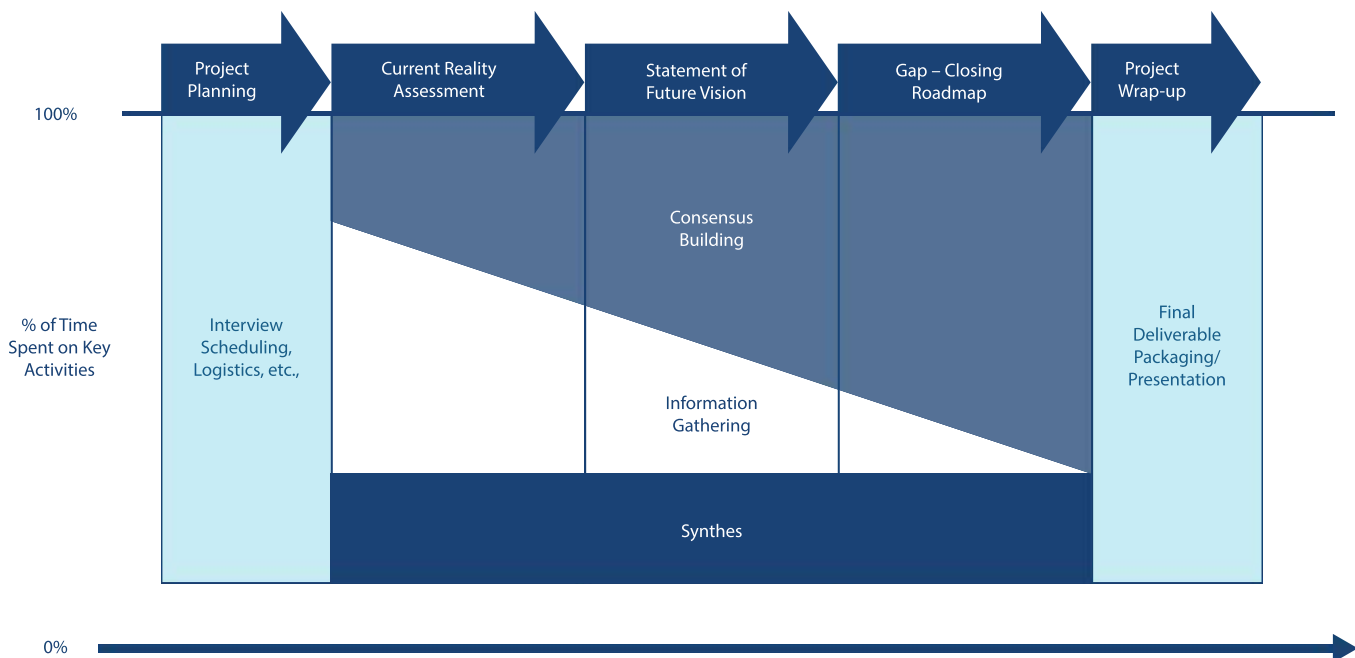

Figure 6 - IT Application Strategy Approach

Project Planning

Key Objective: Identify key stakeholders, schedule interviews, schedule sessions, and confirm project plan/milestones.

Key Activities:

- Set up logistics and establish project team work environment

- Request and collect available documentation

- Collect project required tools and templates

- Develop project Plan and Schedule

- Identify key stakeholders

- Establish status and steering committee meetings

- Set up information gathering sessions

- Mobilize the project team, complete the project plan and facilitate a project kick off meeting

Current Reality Assessment

Key Objective: In order to properly implement an IT Applications Strategy, a full understanding and assessment of the current IT applications environment and programs must be performed. This includes an assessment of the organizations readiness for change and how well the applications tie into the overall IT strategy and business environment. The objective of this phase is to define "today's reality" including current challenges and opportunities. We need to

understand the landscape to develop a plan to bridge the gap between current reality and future vision. In this phase, all of the dimensions of the IT Applications Framework (Figure 4) are evaluated.

Key Activities:

- Current capabilities

  - Conduct focus interviews with key leadership

  - Conduct facilitated sessions with IT stakeholders and teams

  - Review platforms, applications, & solutions

  - Evaluate resources & skill sets

- Planned Initiatives

  - Review planned projects and IT pipeline

  - Understand Enterprise standards

  - Review technology & applications

  - Review Issue and defect logs, Incident reports

- Best Practice Assessment

  - Gather existing models and best practices from other organizations

  - Document org alignment / governance

  - Evaluate process management

  - Analyze current user experience (customer and internal)

  - Identify business value

Statement of Future Vision

Key Objective: Once the current-state reality is understood, we develop the future state vision. The objective of this phase is to describe a future IT Applications vision and identify the gaps to achieving the future-state that will be addressed in the roadmap.

Key Activities:

- Business Objectives

  - Overview of known business objectives

  - Define leadership vision

- Capability Mapping

  - Understand business demand

  - Prioritize and rank capabilities

- Best Practice Gap Analysis

  - Compare current state to other best practices and comparable models

  - Assess information architecture

  - Analyze org alignment / governance

  - Assess process management

  - Assess user experience

■ Technology & Applications

- Determine business value

- Evaluate technology planning

- Assess fit for purpose

- Document gap analysis

Gap Closing Roadmap

Key Objective: When we understand how the current reality supports the future vision and prioritize the gaps that need to be addressed, the high-level implementation planning can begin. The objective of this phase is to create a phased plan with timing, resources, deliverables and milestones that will guide the strategy implementation.

Key Activities:

■ Drivers & Constraints

- Document known timeline / milestone deadline

- Identify constraints, i.e., time, resources, money

- Identify dependencies

■ Define Projects / Initiatives

- Prioritize projects and create project profiles

- Identify quick win projects

- Bundle initiatives based on impact vs. cost/risk

- Map projects and initiatives on a 24-36 month timeframe

■ Execution Plan

- Plan the immediate next steps and/or initiate projects

- Define appropriate ownership of the roadmap moving forward and a cadence for revisiting and adjusting

IT Application Strategy Components

The typical overall deliverable associated with an IT Application Strategy is made up of multiple parts that ultimately tell the story of the overall Application Strategy. Outlined below is an overview of each of the key elements of a quality IT Application Strategy.

Key Elements of a Quality IT Application Strategy	
Key Element	**Description**
Current Reality Assessment	Assessment of the organizations capabilities across the IT Application Strategy Framework dimensions, including people, process and technology issues and opportunities for improvement.
Future-State Vision	Includes the desired functional, technical organizational and operational improvements needed to meet the organizations requirements.
Gap Closing Analysis	Describes the gaps between the future vision and the current reality. Includes prioritization of needs that will drive the sequencing of the roadmap.
IT Application Roadmap	Plan that describes the initiatives, sequencing, and resources required to move towards the future-state vision. Typically a 2 -3 year plan with quick win opportunities identified.
Project Overviews	Provides additional details regarding each of the initiatives on the roadmap including timing, resources, costs, benefits, risks, dependencies. Etc.
Business Case	Forecasted costs and savings for each of the projects on the roadmap.
Project Management Materials	Project management plan, schedule, risk log, and issue log.

In order to provide additional context for the deliverables mentioned above, we provide additional samples and details about the work performed in each phase of an IT Application Strategy project. Figure 7 – Example Current Reality Assessment Components shows the pieces that comprise the

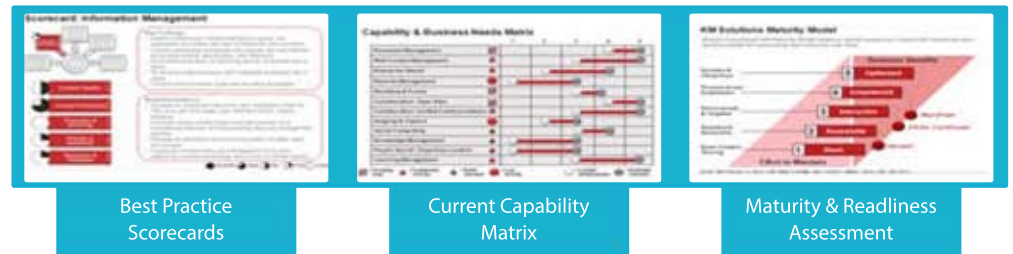| Best Practice Scorecards | Current Capability Matrix | Maturity & Readliness Assessment |

Figure 7 – Example Current Reality Assessment Components

Current Reality analysis deliverables are designed to visually depict the health of your overall IT operations against our assessment frameworks such as industry best practices, business needs vs. capabilities, and overall maturity and readiness.

The Future Vision deliverables are designed to document strategic organizational priorities and how those align with the IT vision as well as making key best practice recommendations and establishing the business case and ROI model for the strategy program. Figure 8 –Example Future-State Vision Components shows the pieces that comprise the Future State Vision deliverable.

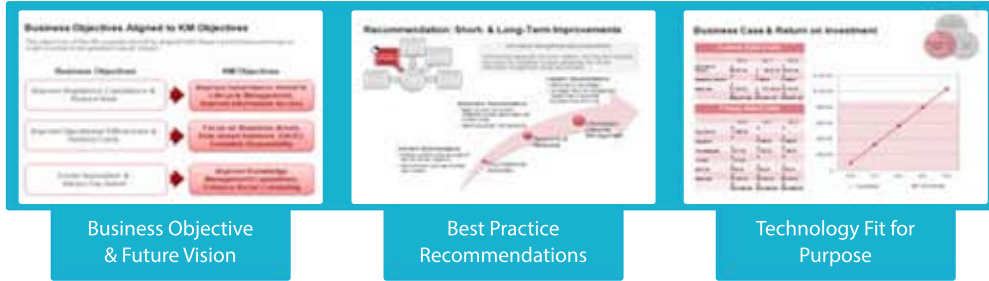| Business Objective & Future Vision | Best Practice Recommendations | Technology Fit for Purpose |

Figure 8 –Example Future-State Vision Components

Figure 9 - Example IT Strategy Roadmap Components shows the Execution Road Map, which is focused on prioritizing the risks and benefits of potential projects and initiatives and subsequently mapping them to a 12-36 month execution plan. In addition, each project will list risks, benefits, activities, skills, dependencies, and timelines.

| Risk / Benefit Prioritization | IT Strategy Excution Road Map | Key Project Files |

Figure 9 - Example IT Strategy Roadmap Components

Project Duration and Preliminary Schedule

Our IT Application Strategy definition approach is tailored to meet the needs of our clients. Duration is dependent on the depth of assessment needed, the number of business units being supported, the number of applications impacted, the number of stakeholders to be involved, etc. In general, most projects require approximately eight weeks to complete with a typical range being between six and twelve weeks.

About iHealth

iHealth Innovative Solutions is a leader and a catalyst of sustainable societal change. In that same spirit-and building on its technology heritage -iHealth is a catalyst of positive business change propelling organizations ahead by enabling superior operational performance. Working within their existing processes and focusing on targeted functional challenges, we help our clients respond to dynamic change with insight and agility. Our unique approach delivers measurable sustainable business results and a better consulting experience.

iHealth Innovative
Solutions

www.ihealthis.com