



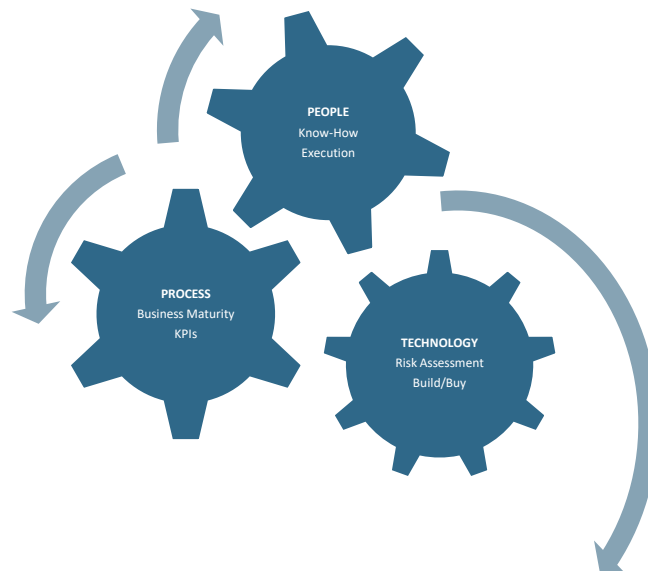
Part 3 – Technology

Timely and well-informed investments in new technology solutions are essential as drivers of performance and productivity, especially in the face of new business ventures and efforts to scale for associated growth. This is particularly true in the health care arena, where technology advancements are often the catalyst for shifting market opportunities – whether related to advancements in health care delivery, integration of new data sources, and/or proliferation of digital “wearable” home monitoring devices (Internet of Things). For example, the data that gets generated and stored from home monitoring devices such as glucose and blood pressure digital readers is available to be uploaded to electronic medical records and other databases for further analysis. However, this requires an infrastructure that supports integration from multiple sources.

Leveraging technology to stay on the cutting edge of innovation can be a challenge for both a fledgling and established health care business, but when done well will clear the way toward advancing productivity, efforts to attract new customers, keeping existing customers satisfied, and fending off potential security threats.

CHANGE LEVERS FOR INNOVATION AND GROWTH

This article is the third in a series where we share insights derived from work, we have undertaken with several of our clients, supporting a scalability roadmap for innovation and growth. This article focuses on “TECHNOLOGY”, while the first and second articles covered “PEOPLE” and “PROCESS”, respectively.



For long term sustainability while supporting new growth ventures, businesses need to foresee the full scope of harnessing technology as they evolve their business models, expand scope of operations to enable real time collaboration with new business partners, and avail themselves of business intelligence (BI) advancements to support smart decision making.

Why this applies to both legacy businesses and startups

If you are part of a legacy organization, existing technology may not afford the flexibility and nimbleness required to support innovation and/or evolve your existing business model to capture new business opportunities.

There will be new capabilities required that may not be well supported with existing technology or data infrastructures.

Data analysts may be limited in their ability to get creative with modeling and prototyping in support of establishing compelling business case scenarios. Having a separate, centralized place supporting business case development and collaboration will help avoid any unintended conflicts with existing technology demands, while also empowering analysts to collaborate and experiment (e.g., quick to fail).

If you are a startup, you likely have limited resources, and it is far better to focus the resources you have on building the business and investing in people and process rather than starting off with major investments in technology. You need to ask yourself – what is your core competency? When is it better to build versus buy when it comes to enabling technology? What is the right time to invest?

In either case, a good place to start is to establish what (new) capabilities are needed and how those components will be enabled by technology.

Establishing a Technology Roadmap and Investment Triggers

When looking to scale and/or revamp technology and data infrastructure to support new business (growth) opportunities, you do not necessarily need to have the new or revised full enterprise solution in place day one. However, you do need to have a good idea about what it ultimately needs to be as well as defined “triggers” to dictate what investments are needed when.

TECHNOLOGY SCALING NEEDS EVOLVE OVER TIME

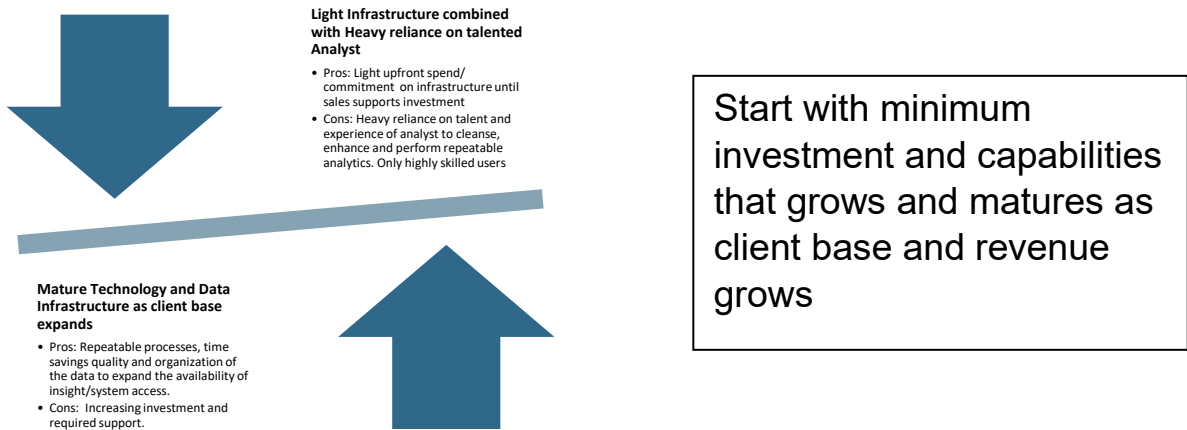
Legacy Businesses:

- ❖ New capabilities drive different technology solutions
- ❖ Centralized location supporting business case development - empowering data analyst collaboration and creativity
- ❖ Additional flexible needed to enable innovation

Startup Businesses:

- ❖ Limited resources
- ❖ Technology not a core competency
- ❖ Need to direct focus to people and process, to build business case for further investment
- ❖ What is the right time to invest?

What follows are a few steps toward creating a technology roadmap for growth and determining the right investment triggers – when is the right time and how will you know?



1. Start by mapping business functions (new and existing) to technology and data infrastructure requirements



2. Establish a Technology Solutions Playbook and investment “triggers”

Building a playbook facilitates identifying a pathway to a full enterprise solution. Without specifying timelines (that will come later), begin to establish a few (3-4) discrete phases and generate ideas about how the various business functions and processes may be supported along the way.

Once an initial playbook and pathway are laid out, it is important to establish triggers that will serve as milestones for decision making regarding next level of technology investment. This is best accomplished by referencing the business case and any assumptions made relative to expected growth trajectory as well as other data points linked with scaling the business.

An example might be identifying when volume related staffing ratios reach a point where the cost/benefit of investing in technology to create additional staffing efficiencies makes sense, in lieu of hiring more people.

3. Confirm roadmap priorities by tying technology enablers to the business case (what will drive the most value as you introduce new offerings to market)

Understanding which new business processes are tied to the greatest customer value generation will help in setting roadmap priorities when there are competing demands for new technology advancements. Having good perspective around what advancements are “big and difficult” versus “smaller and easier to implement” should be weighed against customer value and/or potential revenue yield.

4. Identify timetable and break down overall effort and investment into phases

Following steps 1-3 creates the ability to document options for each phase, and relevant decision points (excel to relational database, to shared services to ownership) in the technology roadmap. Once investment triggers and priorities are identified, it is reasonable to then generate an estimated timetable. Continued evaluation and reference to the roadmap, phases and investment triggers allows investment decisions and their potential timeline to be included in the new opportunity business case moving forward.

NOTE: The most important thing to recognize is that you do not need to have the technology and data infrastructure supporting new growth in place **day one**. It is wise to start with minimum investment up front and allow funding and capabilities to evolve and mature as client base and revenue grows.

Additional Consideration: Advantages of Cloud-based Solutions

A key element to all this entails having a flexible and nimble data infrastructure in place to support rapid iteration in a cost-effective manner – empowering analysts to try out new models and allowing them to “fail fast” as more information and experience with new offerings become available.

We have found that introducing cloud-based services within the technology roadmap is an attractive avenue that works well with the idea of moving to scale incrementally. It supports the ability to modulate technological investments while building for growth.

Cloud-based (shared services) environments offer many advantages whether your business is a start-up with limited resources or a legacy business looking to innovation and/or evolve existing business.

Here are considerations for evaluating cloud-based options for scaling and supporting innovation and growth, as part of your technology investment roadmap:

- **Data Infrastructure:** When the main consideration is keeping cost and investments in “physical infrastructure” to a minimum, leveraging cloud services and vendor partners can do that heavy lifting. Total reliance on “in-house” software and hardware and having your own infrastructure is not usually the asset that sets you apart from the competition. Ask yourself what is your core competency??



Cloud-based solutions save hard drive space and make collaboration easier. Ideal for a business in need of more advanced technology and data management in a rapid growth mode.

- **Collaboration:** Data collaboration helps businesses make full use of resources they already have. As mentioned earlier, having a separate, centralized place supporting business case development and collaboration will avoid any unintended conflicts with existing technology demands, while also empowering analysts to experiment and get creative with data modeling and prototyping.



Tools and a data infrastructure to enable real time collaboration (messaging, sharing data, maintaining, and updating rules governing sharing of information) are often a key consideration.

- **Security/Risk Management:** As business reliance on new information sources expands and use of data sharing protocols and collaboration software grows, the need to secure and protect sensitive information becomes a top shelf imperative. Business owners (particularly smaller startups) underestimate how vulnerable they really are to cyber threats.



Maintaining exclusively in-house control of your data does not necessarily equal security.

Analogy – You might have a house key in your pocket but if you don't lock your door, you have a false sense of security.

Health care businesses should avoid falling into the trap of confusing their core competencies related to care delivery with the urgent need to set up focus on securing data. Consider making it an operating expense and let someone else with the necessary tools and expertise do the heavy lifting.

- **Business Intelligence (BI)** – BI used to be the sole province of larger organizations. However, with the advent of cloud-based services and vendor partnerships poised to provide flexible infrastructure(s) for data management, smaller businesses can now take advantage of the power of big data and predictive analytics – helping them find ways to use existing resources more wisely and discovering new business growth opportunities – all without having to make sizable, fixed investments in technology.



Preset processes and services available via a cloud-based environment can also help jump start analysis – services like data intake, data quality/profiling, and data enrichment – a place for analysts to work on day one, with a reporting structure already in place.

In Summary, having a flexible data environment to do things like business case modeling while remaining agile and able to pivot easily as things evolve is an innovation game changer. Successful innovation brings with it new requirements around risk assessment and performance triggers, as well as

the need to build new metrics and reporting. This is in addition to the option for leveraging new data sources to round out and mature analytics.

Working with an experienced partner who can provide a flexible and nimble set of cloud-based services and data solutions is a viable option to consider when looking to evolve technology and data management in support of new growth and scalability.

We have worked with several of our clients over the years, partnering on scalability projects that include access to our cloud-based services and expertise. To continue exploring possibilities, please access the [DataWELL website](#).