



# Technical Capability Model

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## Proof of Concept Document

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The objective of this project is to develop a Technical Capability Model customized for nonprofit organizations that guides them in the use, application and investment in information technology as they build organizational capacity and seek growth.

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## **EXECUTIVE SUMMARY**

The call for organizational capacity building is well established in the nonprofit sector – stakeholders consisting of practitioners, investors and the board of directors within the community itself have emphasized the need for NPOs to expand their focus beyond program development to include sustainability of the organization and the business model on which it is built. Venture Philanthropy Partners, a philanthropic investment organization based in Washington, DC, invests in high-performing nonprofit organizations to assist community leaders in building strong nonprofit institutions. They hope to help nonprofit leaders grow their organizations in size, strength, and community impact. In 2001, they commissioned McKinsey & Company to conduct a study entitled “Effective Capacity Building in Nonprofit Organizations”. The report identified seven key dimensions relevant for nonprofits to assess their capabilities as they seek to expand their organizational capacity:

- Vision
- Strategy
- Organizational Skills
- Human Resources
- Systems and Infrastructures
- Organizational Structure
- Culture

The McKinsey study provides a solid framework to encapsulate the elements that define organizational capacity for nonprofits but it stops short of providing concrete guidance on how an organization builds its capabilities in each of these areas. What are

the specific actions and investments an organization should undertake to transform themselves into a world class organization? The focus of this proof of concept is to address that question for the Systems and Infrastructures dimension of organizational capacity building. To develop a technical capability model (TCM) that provides pragmatic guidance to large and small nonprofits in the use, application, and investment in information technology. The TCM by definition is targeted for organizations that are seeking transformative steps that include information technology to support their growth objectives. Our goal is to produce an assessment tool and roadmap that serves as an IT strategy customized for the core business processes and inherent constraints of the nonprofit community.

The implicit assumption in this statement is that there exists core processes within a segment of the nonprofit sector that have little variability, or arguably that should have little variability if designed optimally. Leveraging McKinsey's Organizational Capability Model's definitions, we concentrate our efforts on the processes that comprise the back office of nonprofits:

- Financial Operations Management
- Decision Making
- Planning
- Revenue Generation
- Human Resources
- Knowledge Management

These six areas are relevant for most if not all nonprofit organizations and our challenge is how to design a world-class enterprise architecture to support these processes and

scales with the growth of the organization. The expected outcome of our research is a roadmap that defines the specific actions an organization can take to build themselves into a world class organization from the ground up. The challenge is to develop a mechanism that allows existing nonprofits of all sizes to assess their capability needs and map these requirements to the generic enterprise architecture. By establishing a correlation between the needs of an organization, as measured through its growth metrics, and the capabilities of the organization, as measured through the cost per transaction and maximum transaction capacity, we can identify a curve that provides insight on the required level of capacity to support an organization as it grows. By conducting a regression on an organization's growth metrics ( $G$ ) as a function of its capabilities ( $C$ ), we believe you can develop an assessment tool that identifies the organization's current state of ( $G,C$ ) and develop a roadmap to reach a higher level of ( $G',C'$ ) that is driven by return on the investment associated with the capability build-out.

Phase 1 of this research is a proof of concept to demonstrate the validity of the TCM by working with C-level executives (COO, CIO or CAO) responsible for the technical infrastructure within nonprofits and practitioners that support these organizations with their technology initiatives. Our team worked with three nonprofit organizations; Christ Church in Montvale, NJ, McLean Bible Church in McLean, VA and NISH, in Vienna, VA. Additionally, we discussed our project with TechSoup, a CompuMentor program, located in San Francisco, CA and Venture Philanthropy

Partners in Washington, DC. Through these discussions, the viability and need for a TCM was established. Each agreed that a technology roadmap that provides specific guidance on the capabilities required to support core business processes would be a significant contribution in assisting nonprofits build their organizational capacity.

However, the development of a TCM is no simple task and has inherent challenges that must be taken into consideration if the goal is to be achieved. The following details several considerations that became apparent through the course of this project:

- ***Best in Class Profile:*** The primary issue associated with developing the profile is the need to define the sub-processes that are relevant for nonprofit organizations. The core processes from the McKinsey study provide a framework but our analysis requires a lower level of detail to develop a target enterprise architecture and to establish the cost/transaction. Once this is accomplished, the objective of developing a best in class profile is simplified to defining the components that support the processes.
- ***Assessment Model:*** The primary complication is collecting the data required to drive the regression analysis. One element that must be addressed is the development of common definitions of the attributes that serve as proxies for an organization's growth metrics. McLean Bible Church and Christ Church for example, have very different approaches for how they measure the effectiveness and growth of their organizations – the TCM is built on uniformity, therefore there must be agreement within a segment on acceptable performance metrics. Capturing the data to support our premise that increasing capabilities is demonstrated through decreasing cost / transaction and the capacity for increased volume is an additional concern. As a general proposition, nonprofits are not capturing this data, and for those that do, they are not capturing this information in a consistent manner. This specific challenge demonstrates the need for a TCM, to provide NPOs with the capability to manage their operations utilizing a data-driven approach.
- ***Project Administration:*** The feasibility of a TCM is well established, however, this proof of concept has also illuminated the complexity of the task ahead and the need for a disciplined approach for governing the project. Providing adequate resources, a definitive project plan and organizational structure to

address the elements listed above are critical factors that significantly impact the outcome of the project. Expectations of study participants must also be clearly communicated and agreed upon to include regular meeting schedules, access to resources and internal documentation.

The opportunity to conduct this proof of concept has confirmed the validity of a TCM and has reinforced the opportunity to create social value through the application of information technology. By assisting nonprofits build their organizational capacity, we have the potential to impact the lives of millions who are the target of their services. This inspiration has fueled our efforts to continue this research beyond the proof of concept phase and move forward with the significant task of developing a tool for the nonprofit community. In preparation for phase 2, we are taking the following steps:

- Established a new 501 c-3 organization, Digital Network Community Development Corporation ([www.dn-cdc.org](http://www.dn-cdc.org)), to serve as the legal entity that drives this research. Special thanks to Dr. William Tyson, Professor of Legal Studies at the Wharton School, for his assistance in developing the organizing documents – specifically the Articles of Incorporation and Bylaws.
- Established an advisory board, high-level roadmap and resource requirement for phase 2. The anticipated timeline is a 12-14 month study with an associated budget of \$403,000 to complete the initiative. Details of our planning efforts are included in Appendix A for review.
- Requested the continued participation of key stakeholders to maintain continuity in Phase 2.
- Solicit funders to invest in the development of the TCM and recruit and hire the project team.

As we transition to Phase 2, we would like to offer our sincere appreciation to those organizations and individuals who dedicated their time and energy to answer questions, share their experiences and collaborate with our team on this proof of

concept. Special thanks to Dr. Clemons for his patience in guiding this project and his continued support as we engage in Phase 2.

## **INTRODUCTION**

The call for organizational capacity building is well established in the nonprofit sector – stakeholders consisting of practitioners, investors and the board of directors within the nonprofit community itself have emphasized the need for NPOs to expand their focus beyond program development to include sustainability of the organization and the business model on which it is built. On the surface, this request seems logical and very straightforward, but one has to only examine the inherent constraints of the business environment in which nonprofits operate to better understand the challenge these organizations are facing. Capacity building is focused on the internal capabilities of the nonprofit organization itself to sustain its operations and grow its services. How does a nonprofit build this internal capacity or even the competency to know how to build its internal capacity? In the private sector, financial resources are dedicated to building a strong management team, a solid business case for investment of organizational resources and the systems and infrastructure required to successfully execute the organization’s strategic focus and direction. These financial resources often come from retained earnings, investors or other forms of equity infusions. Nonprofits, by design, generally do not have access to these same resources – so what is the mechanism that will allow these organizations to build their internal capacity?

Traditionally, most nonprofits have received funding earmarked for the programs or research they conduct with very little of their revenue dedicated to operational needs. Further complicating this matter is the lack of management talent with experience building world class organizations. This phenomenon has begun to receive significant attention from individuals and organizations who believe that to truly drive social change on a large scale this must change.

Philanthropic investment has become an avenue that nonprofits can turn to for the long-term financial infusion and consultative guidance needed to build their internal capacity. Firms such as Venture Philanthropy Partners (VPP), a philanthropic investment organization in Washington, DC invests in high-performing nonprofit organizations to assist community leaders in building strong nonprofit institutions. Their expectations are not the traditional returns of venture capital firms; instead they hope to help nonprofit leaders grow their organizations in size, strength, and community impact. In 2001, they commissioned McKinsey & Company to conduct a study entitled “Effective Capacity Building in Nonprofit Organizations”. The report identified seven key dimensions relevant for nonprofits to assess their capabilities as they seek to expand their organizational capacity:

- Vision
- Strategy
- Organizational Skills
- Human Resources
- Systems and Infrastructures
- Organizational Structure
- Culture

The McKinsey study provides a solid framework to encapsulate the elements that define organizational capacity for nonprofits but it stops short of providing concrete guidance on how an organization actually builds its capabilities in each of these areas. What are the specific actions and investments an organization should undertake to transform themselves into a world class organization? The focus of this exploratory research project is to address that question for the Systems and Infrastructures dimension of organizational capacity building framework. To develop a technical capability model that provides pragmatic guidance to large and small nonprofits in the use, application, and investment in information technology. Our goal is to produce an assessment tool and roadmap that serves as an IT strategy customized for the core business processes and unique attributes of the nonprofit community.

As we focus on building the organizational capacity of nonprofit organizations, research is clear that there are significant opportunities for these organizations to improve their approach to establishing the vision, strategy, organizational skills and technical infrastructure to execute upon the mission. The overarching message is that nonprofits should govern themselves in a similar manner as for profit organizations – however, as we examine the business processes and unique attributes of nonprofits closer it becomes apparent that there are constraints that drive different incentive structures and operational behaviors. As we build the TCM we must identify business norms unique to nonprofits and incorporate their impact on the organization’s approach for managing their technical infrastructure into our framework.

The following examples begin to shed light on several of the unique elements of nonprofit organizations and how the development of a TCM will significantly aid in the objective of building organizational capacity:

- Measure of Value: Nonprofit and for profit organizations fundamentally differ in their measure of value. For profit organizations, as the term implies, are focused on profit margin; managing both top line revenue and expenses to maximize profits. Nonprofits are focused on execution of their mission – which is generally measured by the number served, quality of service, effectiveness of service or alternative metric other than margin. While many nonprofits are focused on increasing revenues as a means for growth, it is the management of expenses where significant opportunity exists. The TCM is built on the premise that increased technical capabilities leads to reduced transaction costs – therefore by optimizing your enterprise architecture you enable a larger percentage of available funds to support activities that directly impact the organization’s primary objective, execution of mission.
- Depreciation of capital expenditures: Adequately capturing the depreciation of a capital expenditure, such as investments in information technology, provides two primary benefits to for profit organizations. First, and arguably the most important is that depreciation is a tax deduction lowering the tax obligation of the organization and secondly, by identifying the useful life of the capital expenditure, the organization is able to plan effectively for the need for additional capital expenditures in the future. Nonprofits by definition are tax exempt organizations and therefore the motivation to depreciate capital expenditures to lower the organization’s tax obligation does not exist. Planning for replacement costs is critical for any organization but given the dependency of nonprofits on grants and philanthropy – it is an imperative for those organizations that seek growth. Without adequately planning for the replacement cost, nonprofits are unable to solicit funders in a timely fashion and often are limited in the response on how to address this challenge. The symptoms of this phenomenon – antiquated systems, process work-arounds and other inefficiencies that are a result of short-term planning. With downward pressure on available funding generally and limited funding for operational needs more specifically, nonprofits must be diligent in developing a long-term vision for their enterprise architecture that correlates with their desired growth. The TCM provides this ability and will significantly improve the utilization of capital by incorporating life expectancy and expected capital expenditures into the model’s framework.

- Donated Technology: Many nonprofits receive technology that is either donated or provided at a substantially reduced cost from the manufacturer. However, without a clear vision of the current and future technology needs, many nonprofits implement short-term solutions that are actually very costly to funders and may even be detrimental to the organization. Without a model that incorporates growth objectives, organizations may find that while they receive technology at no cost – the cost of implementation, training and surrounding process adjustments are not scalable and implementing another short term solution becomes a repetitive process that is extremely costly. The TCM resolves this issue by providing a roadmap for growth organizations that includes the target architecture of a best in class organization. It also provides donors with the ability to be more focused in their contributions and provides a more integrated view of what is necessary and how all the pieces fit together.

The list above is not intended to be exhaustive but rather a sample of the unique attributes of nonprofits in comparison to for profit companies. By quantifying the implications of these unique attributes, we hope to establish the value proposition for the TCM and further emphasize how this tool significantly benefits the nonprofit community and society at large.

## **CONCEPT OVERVIEW**

The concept behind developing a TCM customized for nonprofits is simple; the objective is to identify the technical capabilities required of a world class organization to support core business processes and to establish a process for building those capabilities from the ground up. For the purpose of this study, our definition of core business processes is taken from McKinsey's Organizational Capability Model which concentrates on back-office operations:

- Financial Operations Management
- Decision Making
- Planning
- Revenue Generation

- Human Resources
- Knowledge Management

These six areas are relevant for most if not all nonprofit organizations; our challenge is determining how to effectively measure capacity as we seek to quantify the relationship between growth and capability. Our premise is that increased capability leads to reduced transaction costs which make available additional dollars to reinvest in programs, technology or other needed resources that support growth. Measuring growth is somewhat straightforward as it is quantifiable. Increase in revenues, margins, customers, members and even quality of service are metrics that most NPOs capture today. However, measuring capability is a bit more difficult as the metrics required are not traditionally captured by NPOs today. Again, our premise is that an organization's cost per transaction and capacity (defined as maximum transaction volume) are proxies for an organization's capability. By establishing a correlation between capability and an organization's growth metrics, we can identify a regression curve that suggests the optimal level of capability required to support the organization's needs.

The x-axis is used to measure an organization's capability level across the core processes. As you invest in information technology to scale capabilities you positively impact the attributes contained in the growth metrics, the y-axis. The relationship is likely non-linear and not exclusively dependent on investment in information technology – as with any significant IT investment, there are people and process implications that must be taken into consideration.

The y-axis is a measurement of the return on investment for capacity building and represents the dependent variable. Therefore, by definition, an increase in capacity must lead to improvement in key performance indicators; the magnitude of this change is used to understand the quantitative impact of information technology in supporting growth objectives. An illustration of this technique is captured in figure 1 below.

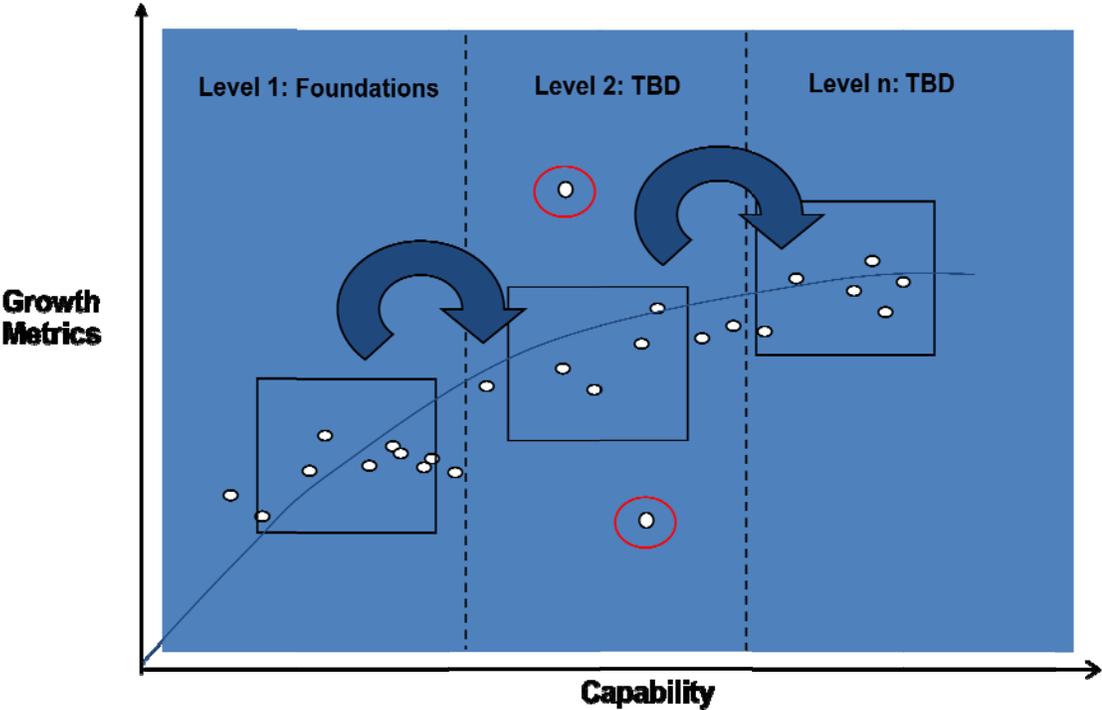


Figure 1: Technical Capability Regression Curve

By conducting a regression on an organization’s growth metrics (G) as a function of its capabilities (C), we believe you can develop an assessment tool that identifies the organization’s current state of (G, C) and develop a roadmap to reach a higher level of (G’,C’) that is driven by the return on investment associated with the capability build-out. Organizations seeking growth which have a (G, C) composite significantly below the regression curve have the internal capacity to improve their performance but are

likely constrained by one of the other variables associated with organizational capacity. An organization that has a (G, C) composite significantly above the curve suggests a more efficient approach for performing core processes; in this situation the TCM should be modified to incorporate a new best practice.

As organizations reach their maximum capacity, it is likely they are either unable to efficiently process their transactions (i.e., cost / transaction increases) or they are simply unable to process the volume of transactions required indicating that additional investments are necessary. These organizations should look at the next level of the TCM for a profile of their future end-state. By gaining an understanding of the cost associated with capacity build-out, the expected impact to key performance indicators and the timeline for realizing the return on investment, a generic strategy can be defined that is customizable to NPO's unique characteristics.

## **METHODOLOGY**

Our methodology for developing the TCM is a multi-tiered approach that is a balanced combination of qualitative and quantitative analysis. The qualitative analysis is focused on developing the profile of a best in class organization. To accomplish this goal, we make a fundamental assumption to support the development of a TCM. The assumption is that a best in class organization has the lowest cost / transaction and also has the highest capacity to execute core processes. While this is not necessarily true in practice, this is deemed a reasonable assumption and necessary to support our regression model. Armed with this assumption, we can profile market leaders in the

nonprofit space to identify the enterprise architectures they have in place, their current capability levels and growth metrics. Our hypothesis is that a best in class organization is the composition of the best practices of market leaders in the nonprofit and private sectors; therefore profiling several market leaders in the nonprofit space and then vetting with subject matter experts in the private sector should produce a solid outcome.

For this proof of concept we selected two market segments within the nonprofit sector to analyze – religious institutions and a mutual membership organization. In the religious institution segment, Christ Church and McLean Bible Church were identified as market leaders that have made significant investments in information technology as they prepare for continued growth. Christ Church, based in Montvale, NJ is a 5000 member organization that consists of a church, school, Community Development Corporation and radio/television broadcast ministry. They have made significant inroads in their growth objectives through the application of information technology – most recently investing in a CRM system to better track and service the needs of their congregation. McLean Bible Church, based in Mclean, VA, provides worship services to over 10,000 attendees on any given weekend. They are in the process of launching their on-line campus, a virtual extension of the brick and mortar facilities to provide their membership with greater flexibility and to extend their reach within the Washington, DC metropolitan area. These churches are leaders in their utilization of technology and serve as great examples of how increasing technical capabilities facilitates and supports improvements in key growth metrics.

The membership organization that was selected for our study was NISH, a national intermediary whose mission is to create employment opportunities for people with severe disabilities. NISH is one of two national, nonprofit agencies designated by the Committee for Purchase From People Who Are Blind or Severely Disabled [a federal government agency] to support nonprofit agencies (NPAs) participating in the AbilityOne Program, formerly Javits-Wagner-O'Day (JWOD), which provides employment opportunities for people who are blind or have other severe disabilities by procuring Federal contracts for goods and services. NISH is currently in the midst of a complete overhaul of its internal support systems and is also assessing the technical needs of the CRPs that it assists with the AbilityOne Program.

By collaborating with these organizations to understand their historical approach for building capabilities, current organizational profile, constraints and their growth objectives over the next 3-5 years we gain a baseline of how organizations are approaching the task of building their internal capabilities. By complementing this analysis with the expertise of practitioners in the private sector we hope to improve upon current best practices in pursuit of developing the profile of a world class organization.

The quantitative aspect of our study has three primary deliverables: an assessment tool that consistently and objectively measures growth and capabilities (G, C), a regression curve that associates an organization's growth metrics with its capabilities and a business case to identify the return on investment associated with IT initiatives. The assessment tool requires the development of an algorithm that

objectively stratifies organizations based upon their specific characteristics. As a first step, our focus is to develop a judgmental scoring model that incorporates key attributes associated with an organization's growth and capabilities. An empirical model based upon historical data is more optimal but this level of analysis is more appropriate for a later stage of this research effort.

In this section we provide a strawman of the attributes that define both growth and capacity and highlight our initial approach to assessing organizations across both dimensions. Our hypothesis is that revenue and a measure for constituency base (membership, volunteer base, customer base, etc) are key determinants in assessing an organization's growth metrics. Our analysis starts with a simple algebraic expression to establish a relationship between these two attributes with weight (a) and (b) respectively.

$$Y = a (\text{revenue}) + b (\text{constituency base})$$

Where both revenue and constituency base are discrete functions associated with a range of values. The following discrete values represent a starting point for our study.

### Revenue

#### VALUE   RANGE

1. \$0 < Revenue < \$100,000
2. \$101,000 < Revenue < \$500,000
3. \$501,000 < Revenue < \$1,000,000
4. \$1,000,001 < Revenue < \$3,000,000
5. \$3,000,001 < Revenue < \$6,000,000
6. \$6,000,001 < Revenue < \$10,000,000
7. \$10,000,001 < Revenue < \$15,000,000
8. \$15,000,001 < Revenue < \$25,000,000
9. \$25,000,001 < Revenue

Therefore, if an organization's revenue falls between the range of \$0 - \$100,000 we will assign a value of 1 and the growth algorithm would read as follows:

$$Y = a (1) + b (\text{constituency base})$$

The selection of values is arbitrary, however the relationship between the weights, (a) and (b) respectively are very important. A similar approach is taken for the development of the constituency base function incorporating cost / transaction and capacity as the critical attributes. It is reasonable to assume that Christ Church and McLean Bible Church both associate growth with more individuals participating in their service offerings, however, the metric that each organization tracks to reflect this growth is different. Is membership on the churches role, active membership defined through recent giving or attendance at worship services the right metric to reflect growth? This dilemma can be sorted out through collaboration to determine common metrics to support our objective.

Another consideration also becomes apparent that our model has additional flaws as we begin to think about applying our scoring model to a broader audience. For example, if we look to compare either of these churches with an organization such as NISH, we are attempting to compare apples and oranges at best. NISH has one primary customer, the federal government and its constituency base is the CRPs that deliver the services required by NISH's customer. MBC has 1500 individuals as official members but has over 10,000 individuals attending weekly services; similarly, Christ Church has over 40,000 individuals in its member repository but estimates that only 5,000 of those

are active. Without developing a unique scoring model for each segment of the nonprofit space our assessment model would not take into consideration the complexity of an organization such as NISH when compared to organizations that have different objectives, missions and value chains. Therefore, we must identify each segment of the population and then develop an appropriate scoring model that utilizes metrics appropriate for that segment of the nonprofit sector.

It is imperative that we work closely with study participants and industry experts such as TechSoup to develop a judgmental model that provides an accurate view of the relationship between the key attributes and more importantly between organizations. As we collect data from study participants we will reexamine our model and refine the weighting and potentially the attributes based upon the results of the data. Once this is completed we are then able to collect the data required from a broader sample of organizations through a survey to develop our regression curve.

Regression analysis is a technique in which a curve is fit to a set of data points to measure the effect of a single independent variable. The slope of the line is the measured impact of that variable. In layman's terms, our objective is to take the output from our assessment tool (the judgmental scoring model) and determine how an increase in capabilities (our independent variable) impacts our growth metrics (our dependent variable). By uncovering this relationship, we are able to group organizations with similar profiles into a cluster within our TCM. The purpose of this step is to associate a cluster, that share common capability and growth characteristics,

with an enterprise architecture that is consistent with the roadmap in building a world class organization. This is illustrated in Figure 1 below:

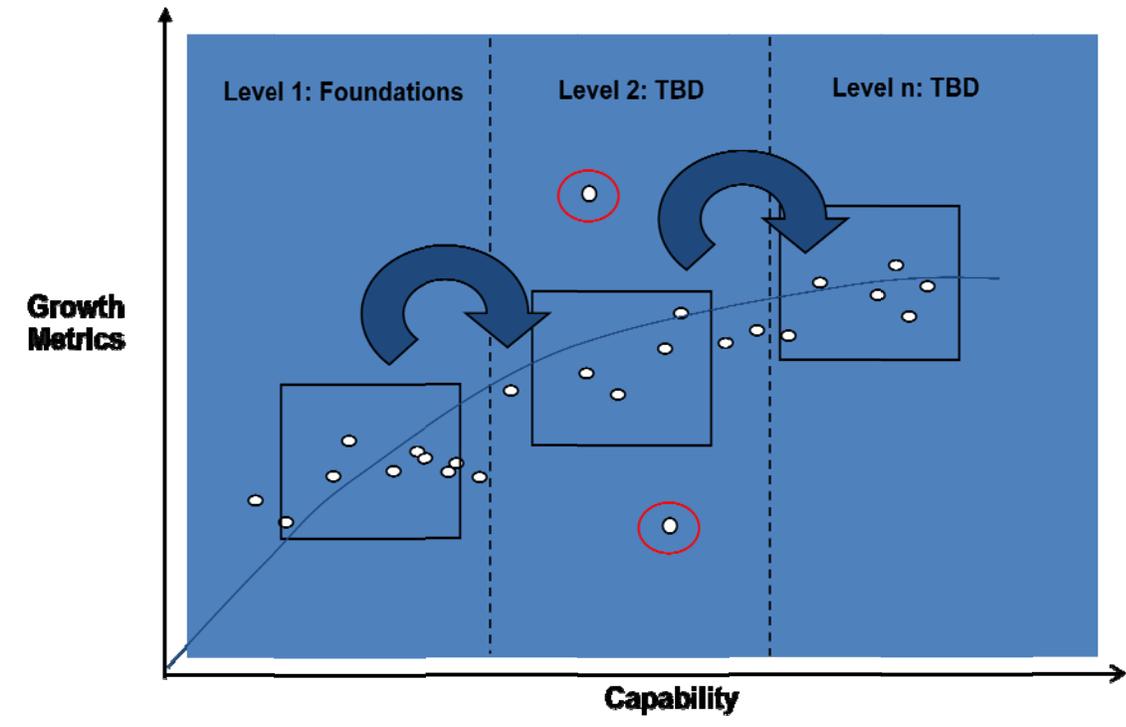


Figure 2: Technical Capability Regression Curve

The boxes in Figure 1 reflect interim releases in the development of a world class organization that map to the profile established through our qualitative analysis. This approach allows nonprofits, both large and small, to assess their current capabilities and focus their IT investments in a systematic manner targeted to the long term vision of becoming a world class organization. As an organization's growth metrics extend beyond a particular level within the TCM, the organization must prepare for additional IT investments to increase its capabilities to the next level of development. As IT investments represent a significant capital expenditure, nonprofits must be armed with the business rational and ROI to effectively advocate its "investors" for the funds

required to execute their IT strategy. The final element of our quantitative analysis provides this data to support the adoption of the TCM.

The development of a business case that supports the build-up of a world class organization utilizing the TCM is an important element for establishing the return on investment and the true benefit of the model itself. As the call for organizational capacity building is well established, the approach to answer the call must be based upon solid economics. The TCM is built upon the fundamental principle that increasing capabilities reduces transaction costs which facilitates growth. The benefits associated with growth must significantly outweigh the cost associated with the build-up at steady-state to confirm the validity of the model. It is important to re-emphasize however, that technical capabilities alone are not sufficient to obtain an organization's growth objective, it must be part of an integrated strategy that incorporates each of the seven elements required to build and sustain organizational capacity.

## **OUTCOME**

The conclusion to our proof of concept phase is that the development of a TCM is a viable opportunity that furthers existing research on building organizational capacity by providing the blueprint for the enterprise architecture organizations will require as they scale their infrastructures. The implications are enormous; thousands of organizations throughout the United States and abroad can utilize a TCM as a resource to guide their internal strategy for building technical capability eliminating investments in unneeded technologies, initiatives that do not scale and development without a clear

vision of the future. Further, organizations, funders and nonprofit stakeholders in general will have a deeper appreciation for the specific capabilities required to become a world class organization and the return on their investments.

Our discussion with the three study participants provides insight into how a TCM benefits the nonprofit sector in general. McLean Bible Church and Christ Church have both experienced significant growth over the past 3-5 years and have invested significantly in information technology to scale their internal operations. The challenges each of these organizations faced as they looked to integrate data across revenue centers, convert data and simply scale their operations highlights the need for a long term strategy for an organization's infrastructure. Lessons learned have also illustrated that having a long term technology vision minimizes the amount of throw away investment the organization undertakes. These experiences were a direct driver for focusing Level 1 of the TCM on foundation building – establishing a long term technology vision, strong data stewardship, common definitions of data elements and building an enterprise architecture that easily scales are of fundamental importance for an organization that desires growth.

While NISH's experience building their internal capacity also provides lessons learned on establishing a strong foundation as a critical first step, it is their relationship with the 360-380 CRPs they work with to deliver goods and services to the Federal Government that further emphasizes the value proposition of a TCM. If we view the full value chain of the sourcing process, it becomes evident that technology is a critical enabler to develop an efficient end-to-end process.



**Figure 3: NISH Value Chain**

NISH has made considerable strides in their internal capacity to integrate with their sole customer, the Federal Government. However, the CRPs have different levels of capabilities and their ability to integrate with NISH limits the efficiency of this network. While some of the CRPs have the technical capability required to allow the procurement process to run smoothly from the Federal Government to the CRPs and back, many of these organizations are small and have limited technology to support this objective. The consequence, the network is only as strong as its weakest link. NISH has developed front end solutions that allow CRPs to leverage their information technology, however, as they look to achieve their 2008-2010 strategic objective of reducing the 70% unemployment rate among people with severe disabilities, working with the CRPs to improve their internal capacity, improving the efficiency of the network, is a complementary step in achieving goal. A TCM would provide a common framework for the CRPs to adopt and follow that takes into consideration their specific processes in the context of the broader value chain.

Our discussions with the study participants confirmed our expectation of the value proposition of our efforts; however, these discussions have also brought to light that the development of a TCM is no simple task. There are inherent challenges that

must be taken into consideration if the goal is to be achieved. The following details several considerations that became apparent through the course of this project:

- ***Best in Class Profile:*** The primary issue associated with developing the profile is the need to define the sub-processes that are relevant for nonprofit organizations. The core processes from the McKinsey study provide a framework but our analysis requires a lower level of detail to develop a target enterprise architecture and to establish the cost/transaction. Once this is accomplished, the objective of developing a best in class profile is simplified to defining the components that support the sub-processes.
- ***Assessment Model:*** The primary complication is collecting the data required to drive the regression analysis. One element that must be addressed is the development of common definitions of the attributes that serve as proxies for an organization's growth metrics. McLean Bible Church and Christ Church for example, have very different approaches for how they measure the effectiveness and growth of their organizations – the TCM is built on uniformity, therefore there must be agreement within a segment on acceptable performance metrics. Capturing the data to support our premise that increasing capabilities is demonstrated through decreasing cost / transaction and the capacity for increased volume is an additional concern. As a general proposition, nonprofits are not capturing this data, and for those that do, they are not capturing this information in a consistent manner. This specific challenge demonstrates the need for a TCM, to provide NPOs with the capability to manage their operations utilizing a data-driven approach.
- ***Project Administration:*** The feasibility of a TCM is well established, however, this proof of concept has also illuminated the complexity of the task ahead and the need for a disciplined approach for governing the project. Providing adequate resources, a definitive project plan and organizational structure to address the elements listed above are critical factors that significantly impact the outcome of the project. Expectations of study participants must also be clearly communicated and agreed upon to include regular meeting schedules, access to resources and internal documentation.

Each of these challenges presents a unique set of complexities that have been taken into consideration as we prepare to press forward with Phase 2 of this study.

## NEXT STEPS

The opportunity to conduct this proof of concept has confirmed the validity of a TCM and has reinforced the opportunity to create social value through the application of information technology. By assisting nonprofits build their organizational capacity, we have the potential to impact the lives of millions who are the target of their services. This inspiration has fueled our efforts to continue this research beyond the proof of concept phase to focusing on the significant task of developing a tool for the nonprofit community. In preparation for phase 2, we are taking the following steps:

- Established a new 501 c-3 organization, Digital Network Community Development Corporation (DN-CDC), to serve as the legal entity that drives this research. The mission of the DN-CDC is to identify and develop innovative applications for information technology that create social value for local communities ([www.dn-cdc.org](http://www.dn-cdc.org)). Special thanks to Dr. William Tyson, Professor of Legal Studies at the Wharton School, for his assistance in developing the organizing documents – specifically the Articles of Incorporation and Bylaws.
- Established a governance structure, high-level roadmap, resource requirement and budget for phase 2. The details of our planning efforts are included in Appendix A for review.
- Requested the continued participation of key stakeholders to maintain continuity in Phase 2. The status of those requests are as follows:
  - Christ Church, has agreed to continue its participation in Phase 2 of the study
  - McLean Bible Church, has agreed to continue its participation in Phase 2 of the study
  - Techsoup, has agreed to continue its participation in Phase 2 of the study.
- Solicit funders to invest in the development of the TCM – the financial requirements are contained in the budget contained in Appendix A.

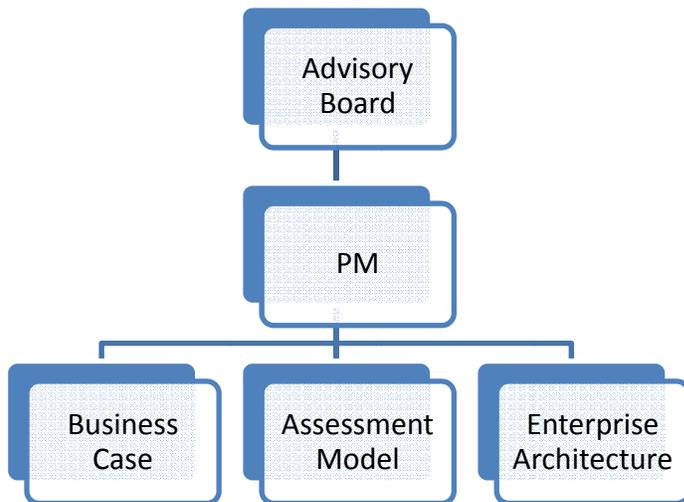
- Develop an advisory committee to guide the Phase 2 activities that includes representation from funding sources, IT practitioners and a broader array of nonprofits from different sectors.
- Recruit and hire project team to conduct Phase 2 research.

These tasks are in various stages of completion and represent the initial activities of Phase 2. We are very grateful for the time, energy and support that various individuals have invested into this project; special thanks to Dr. Clemons for his patience in guiding this effort and his continued support as we engage in phase 2.

## Appendix A: Phase 2 Planning Artifacts

### Organizational Structure

To support the governance of Phase 2, the following organizational structure is being put in place:



**Advisory Board:** This is the senior governing body for this study and is comprised of executives from participating organizations, subject matter experts and funders to the nonprofit community.

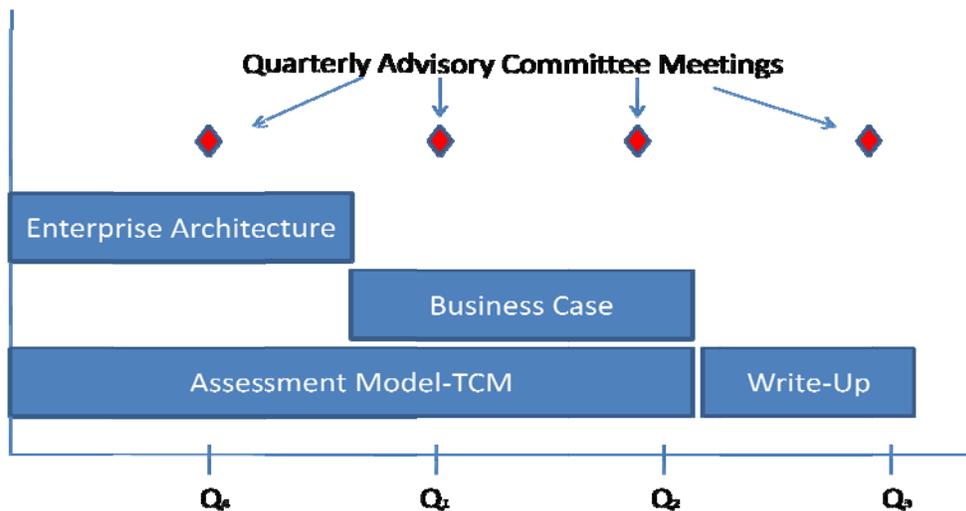
**Project Manager:** The PM is responsible for day-to-day administration of the program providing oversight and working directly with the individual teams to accomplish their deliverables

**Project Team:** The team is comprised of 3 FTE to produce the following deliverables: Detailed Business Case, Best in Class Enterprise Architecture, Capability Assessment Tool and the Technical Capability Model.

The team is the primary driver for completing the required data gathering, analysis and reporting, however, their efforts must be complemented with subject matter experts to accomplish our goal.

## Appendix A Continued: High Level Project Plan

The following high level project plan provides the general roadmap for the activities required to complete the activities of the Phase 2 study.



The proposed plan initiates with the development of the target enterprise architecture for a best in class organization in the selected sectors. It is anticipated that this effort is completed within a 3-5 month timeframe. The Assessment Model and TCM are also launched at the kick-off of Phase 2 and are on-going throughout the project. The business case incorporates data from the enterprise architecture and utilizes much of the same data required to drive the assessment model. This activity is estimated at 3-5 months in duration. The final write-up includes a formal document to summarize the results of Phase 2 and a write-up targeted for publication (and potentially a formal presentation for industry conferences).

A more detailed project plan will be developed as an early deliverable after the project team is put in place.

Appendix A Continued: Phase 2 Budget

The budget for phase 2 is estimated below and is based on the resource requirements and timeline provided above.

<b>Budget Category</b>	<b>Monthly</b>	<b>14 Month</b>
<b>Planned Labor</b>		
4 FTE	\$ 20,430.00	\$ 286,000.00
<b>Program Administration</b>		
Office	\$ 1,200.00	\$ 16,800.00
Travel	\$ 2,500.00	\$ 35,000.00
Phones	\$ 300.00	\$ 4,200.00
Computers/Printers	\$ 5,000.00	\$ 5,000.00
Office Supplies	\$ 200.00	\$ 2,800.00
Internet	\$ 35.00	\$ 490.00
DN-CDC Admin (15%)	\$ 4,449.75	\$ 52,543.50
<b>Total</b>	<b>\$34,115</b>	<b>\$402,834</b>

The project timeline for phase 2 is between 12-14 months with an estimated budget of approximately \$400,000. The planned labor expense represents 70% of this cost. The remaining costs reflect the project and organizational administration to accomplish the task of building a TCM.