
TRANSFORMING TECHNOLOGY PRO BONO

SUPPLEMENT

A CUSTOMER-CENTRIC APPROACH
TO DISCOVER & DESIGN

In [Transforming Technology Pro Bono](#), the Taproot Foundation and VMware Foundation shared a practical approach to tech pro bono, which is grounded in two principles:

1. Taking a customer-centric approach, and
2. Applying established best practices from the for-profit technology industry.

Through this research, we introduced the [Solution Development Framework](#), a powerful resource for building nonprofit capacity with technology expertise. The [Solution Development Framework](#) is a customer-centric approach that can guide stakeholders to Discover, Design, Implement, and Maintain solutions that enable nonprofits to adapt and thrive.

With this supplement, we intend to integrate stakeholder feedback from our initial research; dive deeper into the first two phases, Discover and Design; and provide practical tools to put the Solution Development Framework into action. We started with the Discover and Design phases, as these are critical, yet commonly skipped practices.

From interviews with experts who facilitate the Discover and Design phases in their professional careers, we culled key takeaways, which include:

- The importance of a customer-centric mindset
- The sub-stages of Discover: Define an End State & Explore Challenges and Opportunities
- The sub-stages of Design: Analyze and Prioritize & Gather Requirements

By investing in how pro bono consultants and nonprofit staff can effectively undertake the Discover and Design phases of a technology pro bono project, we aim to maximize the impact of tech pro bono and develop sustainable solutions to meet nonprofit needs.

Taproot Foundation
taprootfoundation.org

VMware Foundation
vmware.com/company/foundation

CUSTOMER-CENTRIC MINDSET

A customer-centric approach is about how we engage as much as it is about the solutions we create. Oftentimes, stakeholders place greater importance on the outputs of a project rather than the process and decisions it takes to achieve those outputs. Being intentional and investing in this approach creates greater opportunities for collaboration, which yields more innovative, sustainable solutions that meet an organization's needs.

Taking a customer-centric approach means investing the time to understand an organization's needs and taking into account the context and constraints in which it operates in order to co-create a sustainable solution.

All stakeholders have a role to play:

- For pro bono consultants, it means a commitment to collaborate, build trust, and foster partnership.
- For nonprofit staff, putting this into practice means having open and frank conversations about current needs and the path towards achieving their long-term vision.
- **For both pro bono consultants and nonprofit staff, courageous conversations are key.** Practicing empathy, being candid, and creating shared ownership of the process yields the best long-term outcomes.

Learning for All: Developing solutions in complex and uncertain environments provides professional development opportunities for both pro bono consultants and nonprofit staff. Taking a customer-centric approach not only ensures that the nonprofit's needs are being heard but also can be an opportunity for all parties to hone the capabilities needed to succeed and grow in their everyday roles.

GUIDING PRINCIPLES

Adoption by stakeholders of a customer-centric approach is crucial to the success of the project. Nonprofit staff bring experience in driving social change and subject-matter expertise of their unique focus areas. Pro bono consultants offer an outside perspective, fresh ideas, and a deep desire to support their nonprofit organizations of choice.



Good customers allow themselves to be vulnerable. The questions posed might be uncomfortable. Creating a culture or environment that is safe for these discussions is key.

- VMware R&D Director



For both stakeholders, there are guiding principles that contribute to a successful project:

Embrace discomfort: Identifying areas of opportunity often means acknowledging areas that aren't working. Engaging in these conversations can create tension, so it's important to create a safe space, practice empathy, and act with courage. This openness will ultimately lead to more relevant, impactful solutions.

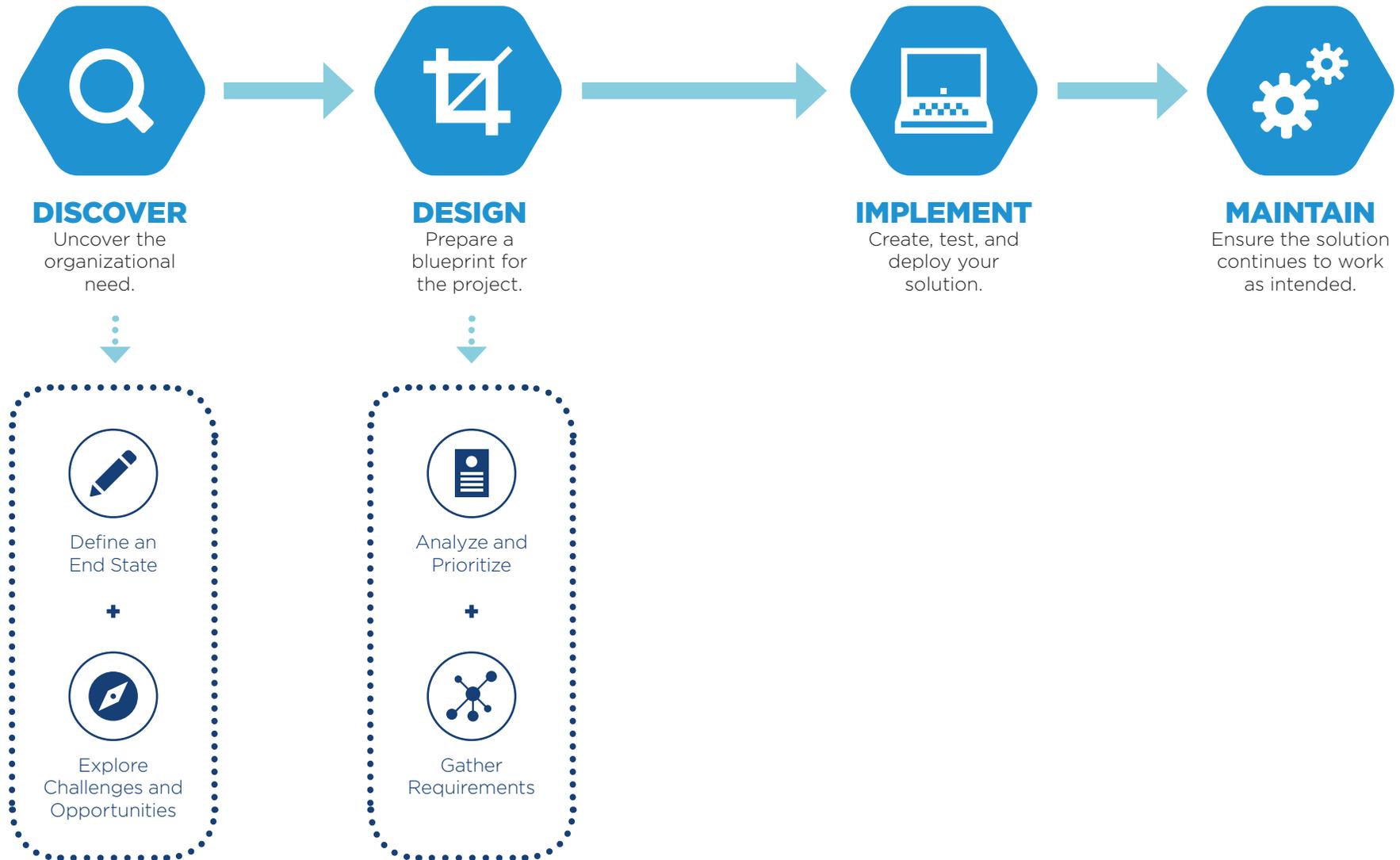
Recognize your bias: We all have bias from our lived experiences. Creating sustainable solutions that solve organizational challenges requires being aware of your conscious and unconscious biases and asking for diverse viewpoints throughout the process. Effective solutions are found through genuine collaboration and partnership.

Believe in a way forward: The most effective project teams believe in a shared vision. Cultivating curiosity, grit, a growth mindset, and an ability to adapt to new information is most effective for aligning priorities and driving towards successful solutions.

Learning for All: Experts like Center for Creative Leadership rank [growth mindset](#) among the top five leadership skills for accelerating performance.¹ Practicing learning agility in a pro bono context can help both pro bono consultants and nonprofit staff build this vital mindset.

SOLUTION DEVELOPMENT FRAMEWORK

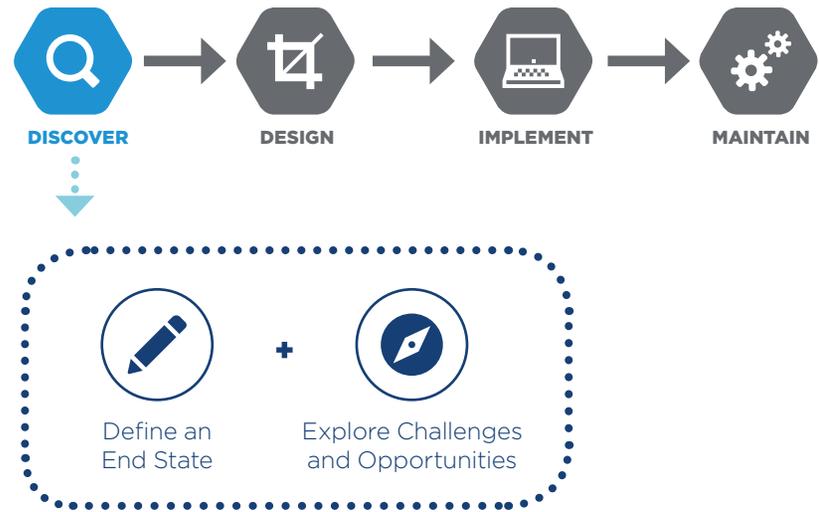
A customer-centric approach to Discover, Design, Implement, and Maintain sustainable solutions that meet an organization's needs.



In the following pages, you'll find practical guides for Discover and Design meant to provide next steps for pro bono consultants and nonprofit staff.

DISCOVER

Uncover the organizational need.



In this phase, the nonprofit staff and pro bono consultants take time to create a shared understanding of the organization’s mission and vision. They then enter into an exploration of the challenges and opportunities that can be addressed, and agree upon desired outcomes. Stakeholders should only move to a Design phase after defining an end state and exploring the opportunities.

DISCOVER GUIDE

DEFINE AN END STATE

Why is this process valuable? Aligning on the organization's vision and mission will ensure all stakeholders agree on and understand the outcome and intended results of the organization. While this may seem like an obvious exercise for nonprofits, taking time to align on an end state will help guide decisions the pro bono consultants and nonprofit staff make as they move through the Solution Development Framework.

To maximize the return on everyone's investment, consider:

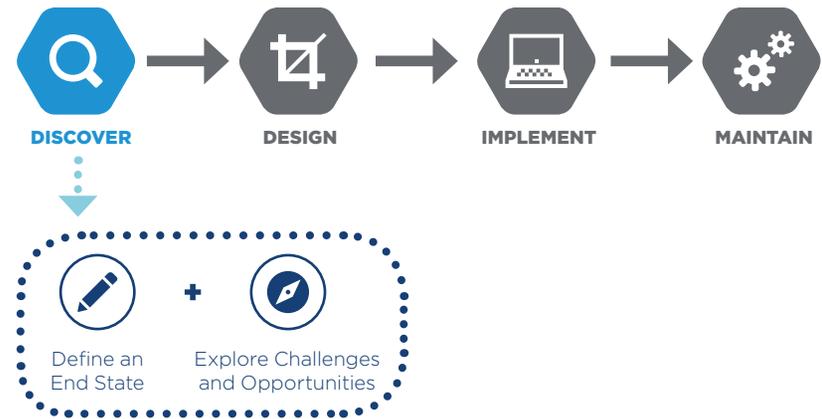
- What is the organization's vision - ideal end state?
- What is our role in supporting that organizational vision?
- Who are the primary stakeholders we are serving?

How to put this process into action: Focusing on creating the rapport and partnership needed to make this project a success is key at this stage. This sets the tone of the partnership, establishes why the nonprofit staff and pro bono consultants are working together, and socializes the project with key stakeholders. Tactics that support joint collaboration, like open dialogue, active listening, and Discovery workshops, facilitate the process.

- Debrief:** Process:
- How did you come to the shared understanding of the vision? (e.g., interviews, focus groups, workshops, 1:1s)
 - Who are the stakeholders (internal and/or external) involved? How did you engage them?
 - What was uncomfortable about this process? What assumptions emerged?

Outcome: State and describe the organizational vision of success.

Tip: We suggest recording this information in a living document that is editable by all parties.



EXPLORE CHALLENGES AND OPPORTUNITIES

Why is this process valuable? With stakeholders aligned on the organization's mission and vision, the next step is to identify how to accelerate impact towards this end state. Balancing the immediate needs of the organization, while planning for proactive solutions, will be key.

To maximize the return on everyone's investment, consider:

- What is stopping you from doing what you want to do today?
- What do you want to be doing more of?
- What would you do with unlimited time and resources?

How to put this process into action: Dialogue with various stakeholders can help surface the organization's challenges. Check out the **Discovery Assessment** on pages 16-17 to help identify opportunities to Run, Scale, and Transform an organization's operations, processes, and program delivery.

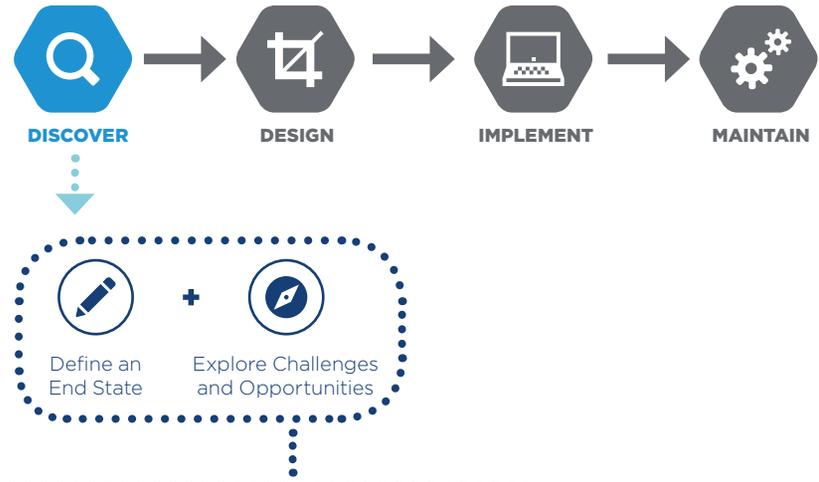
Consider different formats tailored to each audience that can help foster a safe space to explore these challenges. For example, conducting: 1:1 interviews with program managers, who have a unique perspective on challenges across all staff; focus groups with outside stakeholders, such as Board members or the constituents served; and whiteboard sessions with various departments to help map the full range of opportunities.

- Debrief:** Process:
- How did you identify challenges and opportunities for the organization's operations and administration?
 - Who are the stakeholders (internal and/or external) involved? How did you engage them?
 - What was uncomfortable about this process? What assumptions emerged?

Outcome: List the organizational challenges that hold you back from the vision using "Run, Scale, Transform" prompts from the Discovery Assessment tool.

DISCOVERY ASSESSMENT

Identify the organizational opportunities to run, scale, or transform before diving into a specific project.



RUN

Run refers to the daily needs of your organization. It includes any necessary fixes to keep programs and services running.

What is stopping you from doing what you want to do today?

- What do your day-to-day activities look like?
- Describe the tools and processes you use to complete your daily activities.
- What isn't working as expected?
- Do you have new, legacy, or outdated systems? How do they interact?
- Do you have staff who can address issues as they arise?



SCALE

Scale refers to how your organization can grow the reach of its operations and programs. It includes the use or expansion of existing systems.

What do you want to be doing more of?

- Are there annoyances about your processes today that could benefit from being changed?
- Are there repetitive activities that consume large portions of staff members' time?
- Do your people need new skills to be more effective in their roles?
- Are any of your goals being hampered by limited resources?
- Describe areas where you want to increase your reach or impact.
- Are your processes getting stuck in multiple hand-offs or waiting for responses/approvals?



TRANSFORM

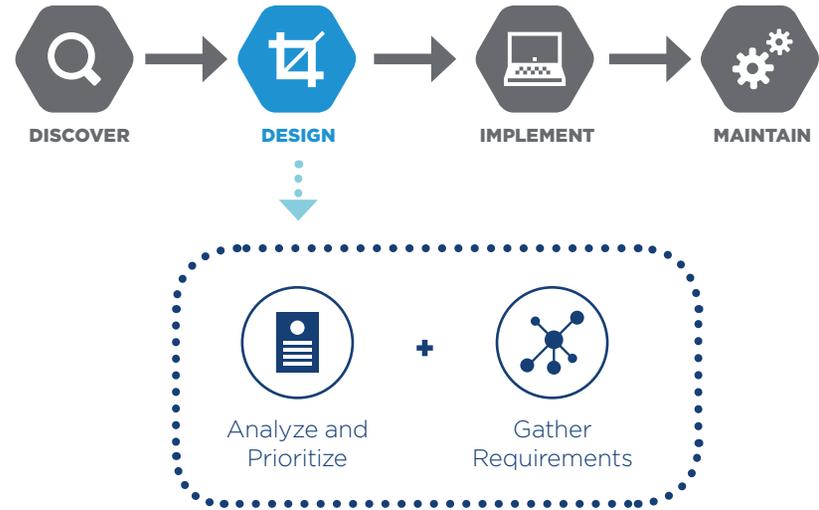
Transform refers to evolving your organization. It includes fundamental changes in the way operations and programs are managed.

What would you do with unlimited time and resources?

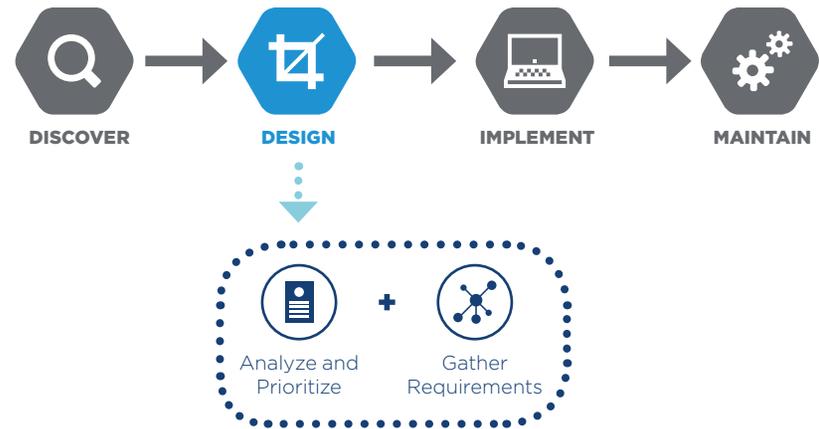
- How might you more effectively and efficiently meet your constituents' needs?
- How might you better engage with your stakeholders?
- Describe what success looks like for your organization in five years.
- If you could have three wishes about your organization's operations and programs, what would they be?
- Describe an organization you admire. What are they doing that you aren't?

DESIGN

Prepare a blueprint for the project.



In this phase, the nonprofit staff and pro bono consultants analyze and prioritize a set of challenges and opportunities. After they decide on which opportunity to focus, they gather requirements in order to design a solution that is sustainable and maintainable for the nonprofit. All impacted stakeholders should be committed to the project vision, aligned on the desired outcome, and engaged throughout the process.



DESIGN GUIDE

ANALYZE AND PRIORITIZE

Why is this process valuable?
The previous phase (Discover) should yield various challenges. To prioritize which challenge(s) to focus on, the nonprofit staff and pro bono consultants will need to identify constraints, assess risks, and check their own assumptions.

To maximize the return on everyone's investment, consider:

- What is the level of organizational readiness (e.g., ability to adopt new processes/technology at this time, leadership support, resources)?
- Will the solution have an incremental or transformational change on the organization's technology, processes, and systems? How does the prospective timeframe for development, implementation, and adoption impact the selected solution?
- When considering a solution, what are must-haves?

How to put this process into action:
Pro bono consultants can facilitate discussions with nonprofit staff to explore what needs must be addressed and the trade-offs of making these choices. For example: A workshop with the nonprofit's stakeholders using post-its to rank-order problems can encourage a transparent and collaborative process to select which project to prioritize.

Debrief:
Process:

- How did you prioritize the opportunity on which to focus? What constraints did you take into consideration?
- Who are the stakeholders (internal and/or external) involved? How did you engage them?
- What was uncomfortable about this process? What assumptions emerged?

Outcome: State the opportunity you'll address that contributes to the overarching vision.

GATHER REQUIREMENTS

Why is this process valuable?
Gathering requirements helps ensure the success of a solution. Pro bono consultants will want to have in-depth conversations with nonprofit staff to identify what systems are currently in place, as well as document information gathered and any gaps that need to be addressed by the solution.

To maximize the return on everyone's investment, consider:

- What existing processes/systems do you have in place?
- What functionality do you want to continue? What enhancements are needed?
- Does the organization have this information documented? (See the **Solution Requirements Document** on page 22 for a helpful template.)

How to put this process in action:
Pro bono consultants and nonprofit staff can document the features and functionality required for the solution to meet the nonprofit's needs. Simultaneously, pro bono consultants can conduct a comparative analysis of existing out-of-the-box solutions to see if any are viable options. Additionally, a landscape analysis across sectors can surface a range of already-implemented, successful solutions.

Debrief:
Process:

- How did you take into consideration the constraints in the design of your solution?
- Who are the stakeholders (internal and/or external) involved? How did you engage them?
- What was uncomfortable about this process? What assumptions emerged?

Outcome: Document the completed design, including solution requirements and budget.

CONCLUSION

In *Transforming Technology Pro Bono*, Taproot and the VMware Foundation focused on the critical work of integrating technology as a key capacity-building resource for the social sector. With this supplement, we seek to provide practical guides to apply the Discover and Design phases of the Solution Development Framework. We focused on:

1. Applying a **customer-centric mindset** to develop a sustainable solution that meets the nonprofit's needs.
2. **Discover:** Define an end state & Explore challenges and opportunities.
3. **Design:** Analyze and prioritize & Gather requirements.

Through our continued research, we remain steadfast in our belief that building organizational capacity is critically important. We are committed to advance the direction of technology pro bono and ultimately bridge the growing technology divide.

THANK YOU

This research builds upon our initial findings, which can be found in *Transforming Technology Pro Bono*. We have collectively conducted individual interviews and focus groups with VMware employees in over 14 global locations. The departments they represent include: Business Development, Business Transformation Automation, End User Computing, Global Customer Operations, Human Resources, Information Technologies, Office of the CTO, Research and Development, and Sales.

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RESOURCES

SOLUTION REQUIREMENTS DOCUMENT

As part of gathering requirements in the Design Phase, the Solution Requirements Document (SRD) can help nonprofit staff and pro bono consultants identify the various elements that are required to ensure a successful solution. Typical SRDs include:

- 1. Executive Overview:** State organization's mission and describe programming. Align solution in service of organization's priorities.
- 2. Processes:** Describe the current and future processes. List all processes and systems impacted by new solution.
- 3. Requirements**
 - Use Cases: describe solution use cases and criteria for success.
 - Security: provide security requirements, including data privacy, data retention, and accessibility.
 - Timing: when does the solution need to launch and why (describe drivers).
 - Training: identify training needed for staff adoption.
 - Internationalization (optional): provide any globalization, localization, or regionalization requirements, if applicable.
 - Stakeholder Messaging (optional): determine level of communication with stakeholders.
- 4. Critical Considerations:** List any assumptions, constraints, dependencies, or risks in the solution design.

Appendix

- **Glossary:** Define any jargon or acronyms that are commonly used.
- **Related Documents:** List and attach any reference documents.
- **Project Team:** List project team members and role.
- **Review and Sign-off:** Identify required approvals and ensure sign-off.

DEFINING TERMS

- **Capacity building** is an investment in systems, processes, and technology that increases an organization's effectiveness in achieving its mission.
- **Customer-centric** focuses on understanding who customers are and what they need.
- **Donors** includes philanthropic partners, funders, foundations, and individual donors.
- **Organizational/Sector Challenges and Opportunities** are unmet needs.
- **Organizational/Sector Needs** are the required people, systems, and resources to sustain operations and programs.
- **Pro bono consultants** refers to an individual volunteer/group of volunteers.
- **Pro bono service** is the contribution of one's professional expertise to nonprofits free of charge.
- **Service learning** is contributing time and talent in service of a nonprofit and learning through that experience.
- **Social sector** includes nonprofit and third sector organizations.
- **Social sector stakeholder** includes nonprofits, pro bono talent, companies, and donors.
- **Solution** is the means to address an organization's need. Technology solutions can be hardware, software or systems.
- **Technology talent** are professionals with technical expertise.

For a digital copy of this research paper, please visit: www.vmware.com/go/techprobono

Hallenbeck, George, and Austin Dowling. "Leadership Development Redefined." Taproot Pro Bono Summit 2017, 19 April 2017, New York City. https://media.taprootfoundation.org/docs/Leadership_Development_Redefined.pdf.

ABOUT US

Taproot Foundation connects nonprofits and social change organizations with passionate, skilled volunteers who share their expertise pro bono. Taproot is creating a world where organizations dedicated to social change have full access—through pro bono service—to the marketing, strategy, HR, and IT resources they need to be most effective. Since 2001, Taproot’s skilled volunteers have served 6,000 social change organizations providing 1.6 million hours of work worth over \$180 million in value. Taproot is a national organization with offices in New York City, San Francisco Bay Area, Los Angeles, and Chicago and is leading a network of global pro bono providers in over 30 countries around the world. www.taprootfoundation.org @taprootfound

The mission of the VMware Foundation is to create a culture of service by being a platform for VMware people to be active, engaged citizens in the global community. The VMware Foundation’s giving is rooted in Citizen Philanthropy, VMware’s strategic approach to giving, designed to amplify the personal contributions of VMware people to their nonprofits of choice. At the heart of VMware’s approach to giving is Service Learning. By integrating reflection with meaningful community service, Service Learning helps enrich the volunteer experience, encourages a learning mindset, and builds a culture of service that extends beyond our day jobs to lifelong civic engagement.