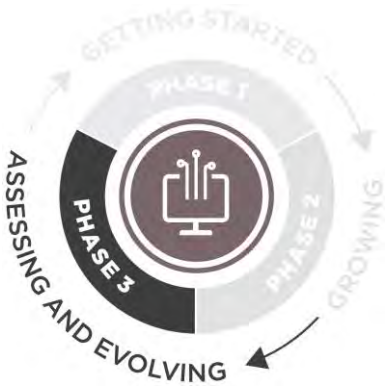


TECHNOLOGY

Phase III: Preparing for Change

Activity: Technology Stakeholders: Does the Shoe Still Fit?

Goals

1. Re-identify and re-prioritize the community's technology stakeholders
2. Create a high-level map of the technology stakeholder's characteristics
3. Support program team's work developing strategies to advance technology sustainability

Prerequisites

Program Mission and Vision, Results of Tech Activity: Who are Your Technology Stakeholders? (if available)

Who Should Participate?

Program leadership (strategic thinkers), Program management (tactical thinkers), Program staff (operational experience)

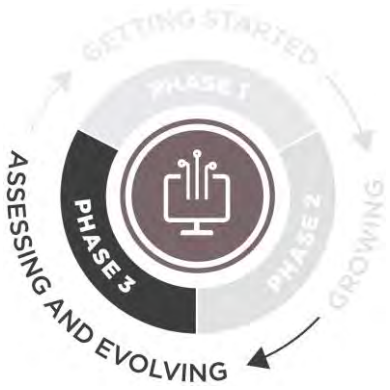
Length

90-120 minutes

Activity Instructions

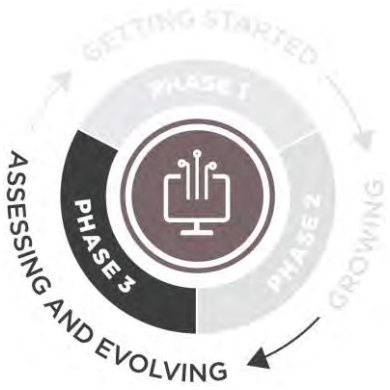
NB: If you have recently (<18 months) completed the activity Who Are Your Technology Stakeholders, gather the results and skip to Step 4.

1. On a whiteboard or shared online document, identify your potential technology stakeholder groups. Using sticky notes (real or virtual) works best, as ideas will be moved around in later steps.
    - It's ok to be granular - your team will eliminate duplicates / combine stakeholders in the next step.
    - Stakeholder examples: end users, QA testers, code contributors, software engineers, sysadmins/IT staff at institutions using the software, program staff at related OSS programs, functional requirements contributors, potential home organizations
2. Move the physical/virtual sticky notes around to categorize your stakeholders into groups.
    - Group examples: Technical contributors, Non-technical contributors, Service providers, etc.
3. Select 3-5 groups to prioritize over the next year. An interest/influence grid or sticker vote may be helpful in prioritizing.
    - An interest/influence grid plots stakeholder groups against two axes: Interest/Availability and Influence and then suggests a level of engagement based on their place on the grid. A sample grid is on page 3.
    - In a sticker vote, each participant is assigned a number of stickers - these can be physical stickers in an in-person event or a specified piece of text (e.g. +1) in a virtual environment. Participants place their stickers or text alongside the options they're voting for, according to the parameters of the exercise (e.g. most important, most likely, most interesting, etc.).



Activity: Technology Stakeholders: Does the Shoe Still Fit?

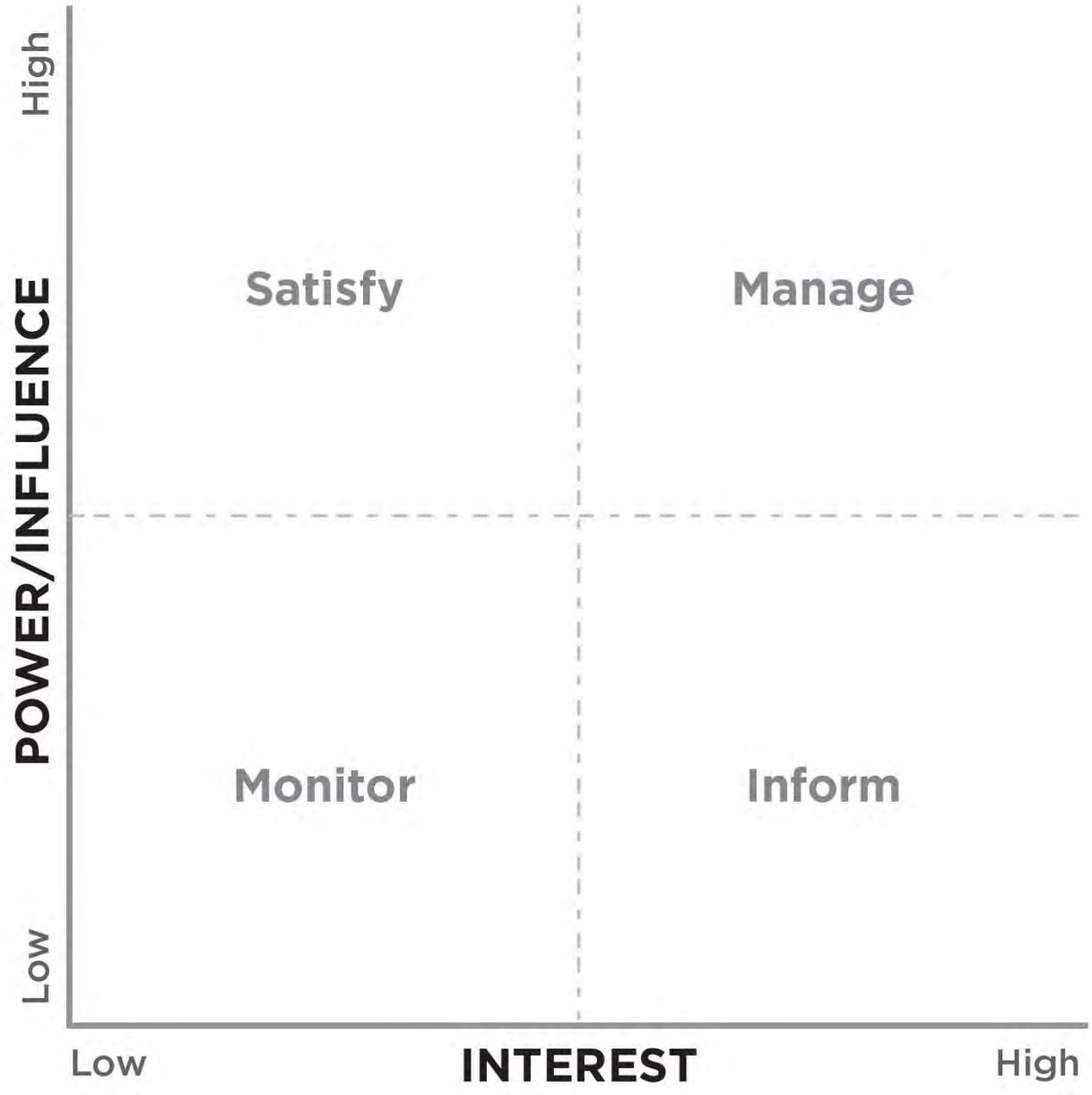
4. If you have the results from an earlier version of this activity (i.e. undertaken during Phase 1), answer the following questions:
   - What has changed about the stakeholder map? Are there new stakeholders or have some dropped off?
   - How have your program's priorities changed? Have different stakeholders groups become more or less important?
   - If there are changes, what effect might they have on the program's priorities?
5. If time allows, for each prioritized stakeholder group in your diagram, discuss the following questions:
   - What are the goals for each user group or technology stakeholder group? Are we clear on what those are? Have they changed over the last 12-24 months?
   - Are there shared or related goals across stakeholder groups? What are the opportunities and areas of collaboration? How can our community work together to create and achieve things?
   - What technology skills are required to make our mission a reality? Which stakeholder groups have these skills?

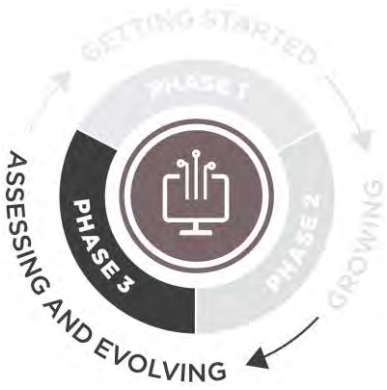


TECHNOLOGY

Phase III: Preparing for Change

Activity: Technology Stakeholders: Does the Shoe Still Fit?





TECHNOLOGY

Phase III: Preparing for Change

Activity: Catastrophizing: Tech Edition

Goals

1. Understand how the program's current technical staff, stack, and roadmap work with unexpected issues (catastrophes)
2. Help programs identify how resilient their staff, stack, and long-range technical strategy are

Prerequisites

None

Who Should Participate?

Program leadership (strategic thinkers), Program management (tactical), Program staff (operational experience)

Length

60 minutes

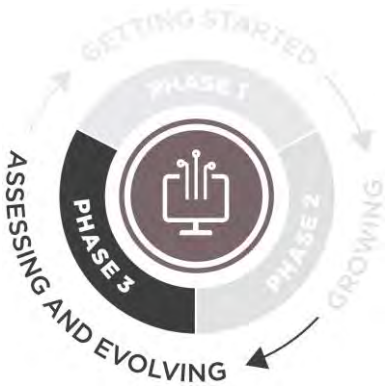
Activity Instructions

1. Brainstorm a list of technical "catastrophes" that would have a significant impact on your program's ability to fulfill its mission. The examples or suggestions can be outlandish - the idea is to think of catastrophic events and how they would be handled.
    a. Defer judgment - make it clear that stakeholders can say whatever they like.
    b. Encourage wild ideas - these can lead to creative leaps!
    c. Build on the ideas of others - encourage stakeholders to "and" each other's ideas.
    d. Set objectives for the number of ideas to be listed and the time to be spent, e.g. "Let's spend 10 minutes coming up with a list of 30 new ideas."

If no immediate suggestions are given, the activity facilitator can seed the discussion with examples such as:

- What if your technical lead won the lottery and moved to Tahiti?
- What if a key element of your technology stack was discontinued?
- What if a service provider forked the code and became a competitor?

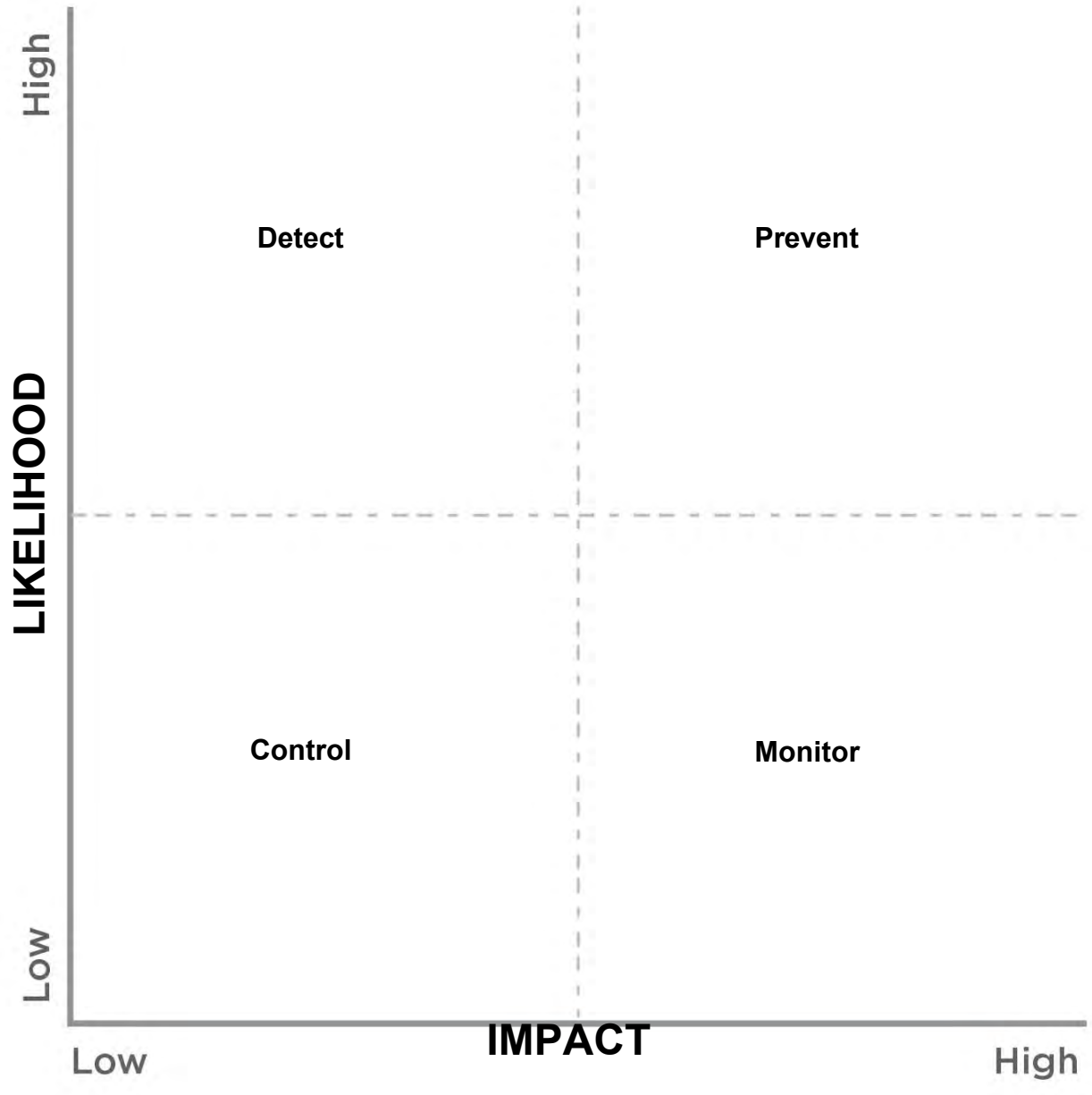
2. Once there is a list of several catastrophes, have participants work together to plot the catastrophes on a risk map with axes of Likelihood and Impact (example on page 2). Once complete, move to Tech Activity: Catastrophizing - Tech Edition Part 2.



TECHNOLOGY

Phase III: Preparing for Change

Activity: Catastrophizing: Tech Edition



TECHNOLOGY

Phase III: Preparing for Change

Activity: List of Dreams

Goals

1. Articulate what future directions your core application could take
2. Plan for and prioritize professional development opportunities for program stakeholders (staff, contributors, trainers, etc.)

Prerequisites

Agreement from program leadership to allow program staff to devote a specific amount of time to professional development.

Who Should Participate?

Program management (tactical thinkers), Program staff (operational expertise), and other interested Stakeholders (e.g. end users, contributors). This activity is best kicked off with a large group together (in-person or virtually) and then moved to asynchronous work with specific assignments.

Length

90-120 minutes for initial brainstorm and discussion

Activity Instructions

Large group together

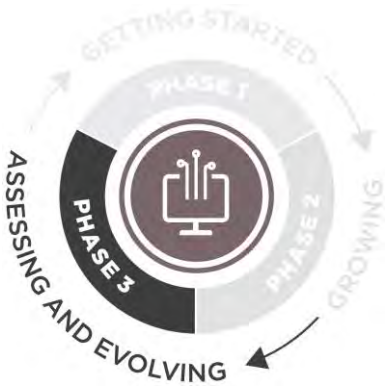
1. Brainstorm ideas for what your program's core application could do, if it could do anything. Ideas should be unconstrained by current features, technology capabilities, funding, etc.
    a. Defer judgment - make it clear that stakeholders can say whatever they like.
    b. Encourage wild ideas - these can lead to creative leaps!
    c. Build on the ideas of others – encourage "and-ing" each other's ideas.
    d. Set objectives for the number of ideas to be listed and the time to be spent, e.g. "Let's spend 10 minutes coming up with a list of 30 new ideas."
2. Take a few minutes to group similar items together.
3. After the brainstorm is complete, have participants sticker vote on the ideas that resonate the most with them - assign each participant a set number of votes to assign.
    a. In a sticker vote, each participant is assigned a number of stickers - these can be physical stickers in an in-person event or a specified piece of text (e.g. +1) in a virtual environment. Participants place their stickers or text alongside the options they're voting for, according to the parameters of the exercise.
4. For the top three or four vote getters, discuss how the program could make it a reality. What new skills or technologies might be necessary?
5. Assign each prioritized skill or technology to a program staff person (as the skill or technology aligns with their interests and capabilities).

Individually, as determined by large group discussion and vote:

As determined by project leadership, devote some amount of time - a week, a sprint, etc. - to investigating that skill or technology.

Each participant in professional development activities:

Report back to program management/leadership. Would adding this new skill or technology help achieve some of the "out there" ideas listed in the brainstorming activity. If not, why not?



TECHNOLOGY

Phase III: Preparing for Change

Activity: Catastrophizing: Tech Edition (Part Two)

Goals

1. Turn the issues identified in Part 1 of Catastrophizing into actionable plans.

Prerequisites

Tech Activity: Catastrophizing - Tech Edition Part 1

Who Should Participate?

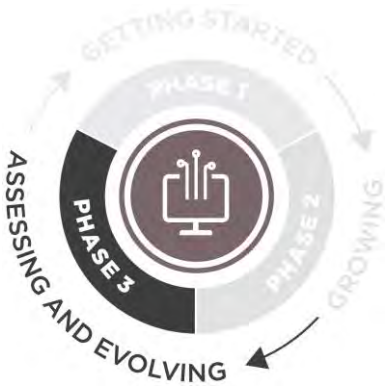
Questions answered by program management, recommendations discussed and/or action on by program leadership.

Length

60 minutes

Activity Instructions

1. Start with the risk matrix developed in Tech Activity: Catastrophizing - Tech Edition Part 1.
2. For at least each high likelihood / high impact catastrophe, talk through the following questions. The template on page two may help organize your thoughts.
    a. What is the catastrophe? What is your definition of the problem?
    b. So what? What are the actual and potential implications?
        i. Think about balance between being prepared and being practical.
    c. Now what? What actions could/should we take going forward?
        i. Are there short-term solutions that can take place while longer-term solutions are being worked on?
        ii. Can we identify stakeholders we can reach out to for help?
3. Once the template is filled in for at least all the elements in the high likelihood / high impact elements, share with program leadership for discussion and/or development of an action plan.



TECHNOLOGY

Phase III: Preparing for Change

Activity: Catastrophizing: Tech Edition (Part Two)

Catastrophe Management Template

What is the catastrophe? *What is your definition of the problem?*	**So what?** *What are actual and potential implications?*	**Now what?** *What actions could/should we take going forward?*

TECHNOLOGY

Phase III: Preparing for Change

Activity: Technical Skills Inventory (Part Two)

Goals

1. Update your program's inventory of what technical skills are needed for technical staff, contributors, and users to develop, support, and maintain the platform
2. Identify new skills that your program will need to acquire or old skills that can be phased out as the program advances

Prerequisites

Technical Skills Part One, Catastrophizing (Tech) Part One, Catastrophizing (Tech) Part Two.

Who Should Participate?

Program management (tactical thinkers), Program staff (operational experience), Code contributors

Length

This activity does not need to be done as a group, it can be completed asynchronously/ collaboratively in a shared document.

Activity Instructions

1. Begin with the Technical Inventory created as a result of Technical Skills Inventory: Part One. If your program has not yet completed that Activity, follow the instructions to create a baseline Technical Skills Inventory.
2. Once the Skills Inventory for your existing platform is complete, update the Inventory based on the results of your Catastrophizing exercises. Note in the inventory if the skill is needed now or if one of the catastrophes happens.

Once complete, the inventory may be used for:

- Roadmap planning: ensuring that major deliverables on the roadmap are not all clustered around a certain skillset (and therefore a certain person)
- Roadmap planning: allowing time for professional development to acquire new skills or identify community members with desired skills
- Job descriptions: update job descriptions for existing or potential positions to include the new skills
- Community building: If users self-hosting is important to your program, the skills inventory can be used to compare skills required to install, upgrade, and maintain the software against skills that your end users have or have access to in their organizations

TECHNOLOGY

Phase III: Preparing for Change

Activity: Technical Skills Inventory (Part Two)

Example Skills Inventory

Example roles (depending on tech stack, may need to qualify with frontend, backend, etc.)

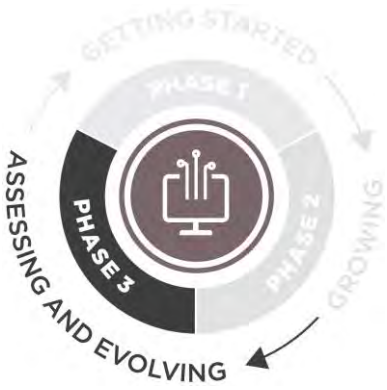
Technical lead, Code contributor, System administrator (e.g. install, upgrade), End user, Migration specialist, Technical support for End user

Example skills (include specific tools in table, e.g. HTML for Web design or development)

Web design, Web development, Assistive technology, Database, Data warehousing, Data analysis, GIS, Platform/OS, Quality assurance/Testing, Reporting, Security, Server

		Skill Level			Now or Later?
Role	Required skill	Novice	Intermediate	Advanced	
Developer: Front end	*Angular/Typescript* *HTML* *Bootstrap* *SAAS/CSS*	*X* *X*	 *X* *X*		*Now*
System administrator (install, upgrade)	*Command line* *Package manager*		*X* *X*		*Catastrophe only*
Report writer	*SQL* *Crystal Reports*			*X* *X*	
…	…				

Examples in *blue italics.*



TECHNOLOGY

Phase III: Preparing for Change

Activity: Developing an End-of-Life Communications Plan

Goals

1. Develop plan to communicate end-of-life decisions with community

Prerequisites

None, although this guide presumes that your team has already decided that a project, program, or platform will be ending.

Who Should Participate?

Program leadership (strategic thinkers), Program management (tactical thinkers)

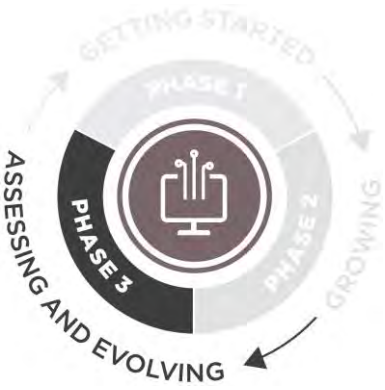
Length

120 minutes

Activity Instructions

As a group, discuss and answer the following questions. The included matrix can help organize your decisions.

1. Who is responsible for implementing the communications plan and ensuring its success?
2. What is being retired? The entire program? An application? Part of an application? The repository, mailing lists, website, or other online forums? Communications should include a wind-down plan and timeline for each element.
    a. Be very clear about what is sunsetting - have answers ready for what you anticipate to be common misperceptions
    b. Be prepared to respond to controversies / negative feedback
3. What do you want to happen as a result of each communication? Let your stakeholders know the purpose of the communication upfront - is it just for information, or do they need to take action?
4. Who is responsible for preparing and delivering communications? Who is on hand to proofread and ensure the message, and any necessary actions on the part of stakeholders, is clear?
5. Who are the stakeholders who need to receive the information? Is the information the same for each stakeholder group?
6. What is your communications timeline? Different communications might be timed to different elements of the wind-down, such as the initial announcement about end of life and then follow-ups about significant events such as the last major release, last maintenance release, end of support, etc.
7. How will you share the information to ensure that all stakeholders receive it? Messages may need to be repeated in multiple formats across multiple channels.
8. Who will be responsible for following up to ensure that messages were received?



TECHNOLOGY

Phase III: Preparing for Change

Activity: Developing an End-of-Life Communications Plan

Sample Communications Planning Matrix

Description - what type of comm?	Frequency – how often?	Method / Channel	Audience / Recipient	Owner / Responsible Party
Project team meeting	*Daily*	*Meeting*	*Tech team / Project team*	*PM, Chair*
Stakeholder update	*Biweekly*	*Email / Website*	*Stakeholders (internal and external)*	*PM*
Leadership group update	*Biweekly*	*Meeting*	*Executive leadership*	*PM*
Regular newsletter / blog	*Weekly*	*Portion in newsletter / blog / etc.*	*Users / Community at large*	*Comms team lead*

Examples in *blue italics*.

TECHNOLOGY

Phase III: Preparing for Change

Activity: Winding down an Open-Source Software Program

Goals

1. Decide when a project or program is no longer useful
2. Understand how to disengage from a project or program
3. Determine what to do about code, repositories, websites, wikis, and other project or program assets

Prerequisites

None

Who Should Participate?

Program leadership (strategic), Program management (tactical)

Length

120+ minutes

Activity Instructions

Visit the Linux Foundation "Winding Down an Open-Source Project" Guide, linked below. From the Linux website:

This Open-Source Guide is designed to offer advice about how your enterprise and your development team can plan for the day when you are ready to end or move away from an unneeded open-source project. By shutting down the project gracefully or by transitioning it to others who can continue the work, your enterprise can responsibly oversee the life cycle of the effort. In this way, you can also set proper expectations for users, ensure that long-term project code dependencies are supported, and preserve your company's reputation within the open-source community as a responsible participant.

This guide will help you decide when a project is no longer useful, understand how to disengage from a project, and determine what to do about its code, repositories, websites, wikis, and other project assets as you head in a new direction.

https://www.linuxfoundation.org/en/resources/open-source-guides/winding-down-an-open-source-project/

Questions for Reflection after visiting the Linux Guide

1. Does your program have any of the trouble signs the guide discussed? Are the trouble signs confirmed with actual data on usage, number of contributions, or errors in the system?
2. If you are planning to disengage, have you decided whether to transfer the project, end your specific portion, or end the entire program? Have you thought through the pros, cons, and resources necessary for each option?
3. What is your plan for program assets, such as code, repositories, website, documentation, etc.?