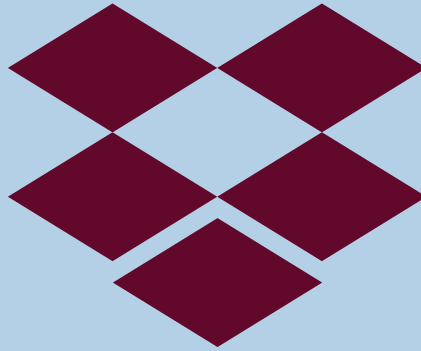


# Designing an Engineering Career Framework



Anirudh Todi

# Eng Career Framework: **Why is it important?**

- For ICs, it is the source of truth for how to achieve impact for one's role and team and how to grow in one's engineering career.
- For managers, it can help one set expectations with one's teams and hold them accountable for their work.

# Eng Career Framework: What is it?

Source of truth for

- **Level Expectations:** Core expectations for each level (IC & Mgr) based on scope and complexity: these expectations are the *what* that determine the difference between an IC3 and IC4, for example
- **Core Responsibilities:** Per-level expectations for key behaviors: these behaviors help you identify *how* you work to deliver impact based on your level expectations
- **Craft:** Per discipline expectations for domain expertise, impact and customer focus.

# Eng Career Framework: **What is it not?**

- **Not a promotion checklist for your role:** rather, it's designed to help one figure out what one's impact could look like at the next level.
- **Not an exhaustive list of examples and behaviors:** it includes some key behaviors that serve as guide for how to think about one's work.

Consequently, one would need to meet with one's manager to define one's goals and align on the expectations for one's role.

# Eng Career Framework: Common Problems

Inconsistent	Every discipline (Engineering/Product/Design/GBO etc) has its own unique career framework
Not scalable	Missing career frameworks or differing levels of maturity for some roles (For example, it is not uncommon to see SWE and EM being robust but SRE, QA etc being missing or not as robust)
Inherent Bias	Emphasizes complexity of projects instead of anchoring on impact. Often frameworks are biased to Infra engineers and disadvantages Product engineers
Not consumable	Framework is long and wordy and is not easy to consume

# Eng Career Framework: Goals & Principles

Consistent	Aligning the Engineering framework to the company-wide framework and only layering on some eng-specific things in.
Scalable	Using the same base framework across engineering; while allowing each discipline (SWE, Security, TPM, SRE, QA) to define their craft
Inclusive	Having clear craft across all disciplines and not being heavily slanted to Infra engineers.
Consumable	Simplifying the framework; also building a better binder to easily see the description of each level

# Consistent with the Company-wide framework

- Aligned with our People team to ship a company-wide base career framework with core capabilities for each level
- Adopted the above framework and augmented with engineering-specific behaviors to clarify expectations

🏆 Results

Responsibility	Key Behaviors
Impact	<ul style="list-style-type: none"><li>• I deliver many of my team's goals on time and with a high standard of quality</li><li>• My understanding of the business context and my team's goals enable me to have the greatest customer impact and allows me to make independent technical decisions in the face of open-ended requirements</li><li>• I can identify when my results aren't moving the needle for our business/team goals or serving the needs of customers in a meaningful way and work with manager to redirect my focus</li><li>• I get work to a simple place by focusing on the heart of the problem and prioritizing the right things</li></ul>
Ownership	<ul style="list-style-type: none"><li>• I proactively identify new opportunities and advocate for and implement improvements to the current state of projects — potentially having broader business impact across teams or products</li><li>• I take responsibility for any failures on my project and take action to prevent them in the future. I embrace and share the learnings from those failures</li><li>• When I encounter barriers, I unblock myself and my team by proactively assessing and eliminating the root cause</li></ul>
Decision Making	<ul style="list-style-type: none"><li>• I make informed decisions by consulting the right stakeholders and balancing details with the big picture</li><li>• I understand the implications of my decisions and adjust my approach based on the impact and risk (e.g. choosing a more iterative approach based on the degree of uncertainty with respect to product fit, while maintaining a view of the long term arc needed to accomplish business goals).</li><li>• I make timely decisions but don't cut corners that would compromise my customer's trust</li></ul>

# Scalable: Base framework for Eng disciplines

- Framework better creates a consistency of expectations across all disciplines in engineering
- Each niche role can then distinguish using the **Craft expectations**

## Craft

My primary craft focus is consistently delivering and improving high-quality systems and code in service of increasing the reliability of Dropbox. I am beginning to develop skills in designing system components and translating reliability, sustainability and efficiency requirements into simple projects.

Responsibility	Key Behaviors
<b>Systems Fluency</b>	<ul style="list-style-type: none"><li>• I understand OS, networks, or hardware and can debug system issues and identify system bottlenecks.</li><li>• I am able to understand and improve the system's health such as utilization and performance.</li><li>• I identify the toil and reduce it with automation for operating systems efficiently.</li><li>• I can navigate through a full stack application (client/load-balancer/frontend/backend/DB) and build proficiency on the right tools to dig into the system issues at different levels.</li></ul>
<b>Systems Design</b>	<ul style="list-style-type: none"><li>• I begin to understand how systems fail and work with teams to reduce the risks.</li><li>• I have a pragmatic understanding of software limitations and how to identify reliability risks.</li></ul>
<b>Code Fluency</b>	<ul style="list-style-type: none"><li>• I translate ideas into clear code, written to be read as well as executed.</li><li>• My code is free of glaring errors - bugs are in edge cases or design, not mainline paths - and is well documented and well tested with appropriate use of manual vs automated tests.</li><li>• I am able to read and navigate through a large code base and effectively debug others' code.</li><li>• I address code tasks with both high throughput and appropriately high quality for the stage of project I am working on.</li></ul>



# Inclusive: Anchoring on Impact

- **Definition:** Impact starts and ends with better serving our customers, which, in turn, helps Dropbox succeed as a business.
- **Impact guiding principles:** Consistency, Velocity, and Accountability
- **Engineering Levers for Impact:** Domain Expertise, Innovation, Product Expertise, Project Leadership, Technical Leadership & Mentorship

# Inclusive: Improved representation of Prod Eng

- Improved language to shift focus from complex, long running projects to delivery of business impact with varying levers of impact
- Product Expertise included as an engineering lever for impact

the needed momentum behind them to see them realized. Your impact comes through keeping Dropbox on the leading edge of our space and market.

## **Product Expertise**

You excel at working with product and design stakeholders to deliver solutions through well-scoped milestones that validate customer needs as quickly as possible while designing for the appropriate level of scale, reliability and future maintainability. You proactively identify the tradeoffs of creating new systems and components, reusing or adapting existing systems, or using open source or partner solutions to optimize the time-to-market for customer value.

## **Project Leadership**

You excel at leading large and complex, cross-functional projects. You bring

# Consumable

Increasing degree of detail for each level

- **One liners** provide simple message of the level of expected impact
- **Scope, Collaborative Reach and Impact Levers** used to frame level expectations
- **Core Responsibilities** define how to behave at your level to deliver impact

## L3 Software Engineer

*I independently identify and deliver software solutions through a set of milestones spanning a specific product focus or a multi-component system*

<b>Scope</b> <i>Area of ownership and level of autonomy / ambiguity</i>	<b>Collaborative Reach</b> <i>Organizational reach and extent of influence</i>	<b>Impact Levers</b> <i>Technical levers typically exercised to achieve business impact</i>
<ul style="list-style-type: none"><li>• I own and deliver projects in service of quarterly goals on the team</li><li>• I independently identify the right solutions to solve ambiguous, open-ended technical problems</li></ul>	<ul style="list-style-type: none"><li>• I work primarily with my direct team and cross-functional partners while driving cross-team collaboration for my project</li></ul>	<ul style="list-style-type: none"><li>• Project Leadership - I define and deliver well-scoped technical milestones for a project. I may be a technical lead for projects on my team</li><li>• Mentorship - I actively level up less-experienced members of my team by helping them with their craft, providing guidance, and setting a good example</li></ul>

### Results

<b>Responsibility</b>	<b>Key Behaviors</b>
<b>Impact</b>	<ul style="list-style-type: none"><li>• I deliver some of my team's quarterly goals on time and with a high standard of quality</li><li>• I understand my customers, the business's goals and my team's goals. I ensure my work will have the greatest customer impact</li><li>• I can identify when my results aren't moving the needle for our business/team goals or serving the needs of customers in a meaningful way and work with manager to redirect my focus</li><li>• I get work to a simple place by focusing on the heart of the problem and prioritizing the right things</li></ul>
<b>Ownership</b>	<ul style="list-style-type: none"><li>• I proactively identify, advocate for and implement improvements to the current state of projects</li><li>• I take responsibility for any failures on my project and take action to prevent them in the future</li><li>• When I encounter barriers, I unblock myself and my team by proactively assessing and eliminating the root cause</li></ul>
<b>Decision Making</b>	<ul style="list-style-type: none"><li>• I make informed decisions by consulting the right stakeholders and balancing details with the big picture. I execute against the spirit, and not just the letter, of the requirements</li><li>• I understand the implications of my decisions and adjust my approach based on the impact and risk</li><li>• I make timely decisions but don't cut corners that would compromise my customer's trust</li></ul>

# Resources

- Blog Post - <https://dropbox.tech/infrastructure/sharing-our-engineering-career-framework-with-the-world>
- Publicly viewable career framework - <https://dropbox.github.io/dbx-career-framework/>

# Thank you!

Questions?

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