What happens when great minds don't think alike?

How platform companies align engineering, finance and operations to drive IPO success

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Platform-based companies must manage their fast growth with regular, close engagement between engineering, finance and other business functions.

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Introduction

Traditional monolithic IT architectures are giving way to microservice-based platform environments that are more modular and agile. Platform environments are primarily found in the technology sector, although non-tech businesses are adapting them.

For these companies, the platform is the primary revenue-generating mechanism and houses the most valuable data. That naturally results in an organization geared primarily to the needs of the engineering team in terms of headcount, investments and decision-making influence.

A platform environment is a robust model for technical innovation, especially as a company is growing rapidly, but presents challenges when a fast-growing company approaches an initial public offering (IPO). Pre-IPO companies — and those that go public — have a broad set of financial, regulatory and operational requirements that must be harmonized with the pivotal work of engineering.

When priorities around technical innovation and public company readiness are not aligned, the resulting miscommunication and strategic disconnects jeopardize IPO timelines and IPO and post-IPO valuations.

Well-prepared companies take advantage of an active tech IPO market

Through December 10, 2020, 64 tech IPOs have come to market, a record-breaking number of tech IPOs in nearly two decades. In September alone, 16 tech IPOs launched, raising nearly $10 billion, the largest amount since 2014.

So what's driving the strong performance? Despite an initial interruption, COVID-19 and the quarantine culture have been advantageous to technology companies. Pre-IPO firms continued to bide their time, and by June, the markets became favorable again.

The 2020 market shows the importance of diligent, thorough pre-IPO work. In a tumultuous year, well-prepared tech companies are closing 2020 in an extraordinary way and reaping the proceeds of a favorable market.

Top 20 recent US IPOs*

Issuer name	Proceeds in US$m	Issuer name	Proceeds in US$m
Snowflake Inc	$ 3,864	**Root Inc**	$ 724
Airbnb	$ 3,490	**Rackspace Technology Inc**	$ 704
DoorDash	$ 3,366	**Datto Holding Corp**	$ 683
Dun & Bradstreet Holdings Inc	$ 1,981	**SelectQuote Inc**	$ 656
Unity Software Inc	$ 1,495	**C3.ai**	$ 651
GoodRx Holdings Inc	$ 1,314	**JFrog Ltd**	$ 585
ZoomInfo Technologies Inc	$ 1,075	**Vroom Inc**	$ 538
GoHealth Inc	$ 914	**Jamf Holding Corp**	$ 538
American Well Corp	$ 853	**Duck Creek Technologies Inc**	$ 466
McAfee Corp	$ 740	**Vertex Inc**	$ 462

* As of December 10, 2020.

Five critical pre-IPO challenges

As companies speed toward an IPO, they must also find ways to harmonize their different functions.

Before the IPO, platform-based technology companies must address five critical challenges.

1 Balancing organizational objectives

A year or two out from an IPO, a company should focus on aligning and balancing priorities, resources and controls across finance, engineering and operations. Early, active lines of communication will help both engineering and product teams understand how their respective work affects the accounting, regulatory, compliance and finance teams.

The downstream impact of new products, services, functionality or existing services that are modified must be assessed before taking these actions. Again, teams need to work in harmony.

2 Establishing a common financial reporting "language"

Understanding and reporting key financial data is crucial for a successful IPO, and this responsibility goes far beyond the finance team. Tax, legal, cyber/privacy, sales, operations, IT and engineering must also have a common understanding of the financial reporting information. The company as a whole must be aligned in the terminology as well as in the intended use of financial reporting data.

Reporting data that originates, or relies heavily, on front-end or underlying product infrastructure could lack sufficient controls and reliability. Likewise, new products or sales initiatives

IPO timeline

2+ years

- Evaluate viability of IPO as a transaction alternative:
  - Scale of business
  - Growth profile
  - Funding needs
  - Valuation
  - Existing shareholder support
- Review corporate and tax structures
- Establish funding and liquidity objectives and understand process and timeline scenarios
- Conduct enterprise-wide IPO readiness assessment across functions
- Align stakeholders around IPO goals, objectives and timing
- Establish and execute enterprise-wide IPO readiness road map covering:
  - People and organization
  - Policies
  - Process and controls
  - Systems
- Formalize IPO PMO structure
- Formalize corporate governance framework and prepare public company policies
- Fine-tune business plan and develop investment thesis
- Formalize KPIs and metrics, including data governance model
- Initiate SOX compliance program, including certification process
- Develop management presentation and begin preparing elements of Form S-1
- Develop Wall Street projection model
- Begin meeting with prospective underwriters and analysts

6 months

- Operate like a public company
- Identify targeted market windows
- Hire lead underwriter(s) and securities counsel; all-hands organizational meeting
- Prepare for and host analyst day
- Draft Form S-1, engage in due diligence process and prepare road show
- Respond to and resolve SEC comments
- Finalize deal documentation and print "preliminary prospectus"
- Conduct road show, marketing, share allocations and pricing

Post-IPO

- Deliver timely disclosures
- Manage analyst expectations
- Maintain active investor relations efforts
- Deliver on IPO projections and promises
- Evaluate next-step financing opportunities
- Manage major shareholder liquidity objectives and timelines

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can complicate accounting evaluations and the capability to produce succinct financial information for investors and analysts.

To mitigate the risk, companies must develop a robust financial reporting and disclosure infrastructure that produces timely, accurate reports for management, regulators, investors and other relevant parties.

3 Building IT governance

Management must harmonize IT, operations and engineering across policies, processes and talent. The "tone at the top" is critical to successful coordination.

That tone manifests in several ways. There must be a clear delineation of responsibilities and reporting between the engineering and IT functions. Management also has to make judgments about funding priorities (i.e., engineering vs. other infrastructure requirements), which often will require a cost-benefit analysis to balance the focus appropriately.

Finally, management must clearly articulate its priorities and allocation of responsibilities and hold engineering and IT mutually accountable for their work.

4 Deploying internal controls

When IT access is not well controlled, a company risks inappropriate access or security breaches that threaten the company's financial results and reputation. When IT change management processes are not mature, a company risks unauthorized system changes that impact financial results and operations.

Key staff (a vice president of engineering, for instance) can help bridge the gap between keeping a compliance mindset while building as fast as possible. Proper training and clear ownership of controls around financial information also are important for building a strong controls mindset.

5 Investing in talent and other resources

In parallel to IPO-specific efforts, companies must continue to invest in the business itself during a high-growth period. The right talent is critical. However, companies chronically underestimate the time it takes to acquire high-level talent in competitive markets.

Certain personnel are vital to achieving that crucial cross-organizational balance — such as those who effectively link product and engineering teams to accounting and finance teams.

Focus on key performance indicators (KPIs)

- KPIs are used to measure an organization's success.
- Investors and financial statement users rely on KPIs found in SEC filings, earnings releases and public disclosure to make decisions.
- KPI data integrity is critical; therefore, data must be supported by robust processes and controls.

Five critical post-IPO challenges

New public companies must discard the private mindset and focus on broader regulatory, finance and operational priorities.

After the IPO, platform-based technology companies must continue the fast-growth mindset that got them to market in the first place. That requires continued alignment and close collaboration between the business and engineering. There are five critical ways that this alignment can fall short, especially within the first year or two post-IPO.

1 Insufficient system architecture

It's vital to have up-to-date enterprise resource planning (ERP) systems and an adequate revenue subledger architecture that can scale with the transactional volume and overall growth of a company post-IPO. Other gaps to look out for include insufficient reporting capabilities and a lack of appropriate systems documentation. Companies must also make sure they have systems that can support production of consistent, reliable KPI data and nonfinancial metrics.

2 Lack of "one source of truth" and effective data management

Data must be complete, accurate and useful to stakeholders. But when data is siloed and/or dispersed across services, that can be a hard target to hit, posing a significant business risk.

Data managers shouldn't rely solely on SQL queries; they must be able to generate reports that can be understood by less-technical finance personnel. Change management also plays an important role. Managers must make sure that queries are updated when underlying tables are modified.

Because a public company reports quarterly, financial reporting is more crucial and must be more tightly governed than when the company was private. IT must understand financial accounting, reporting, disclosures and controls. If not, master data might be of no use to stakeholders. Additionally, inconsistent master data in different systems can cause data manipulation to occur outside of reporting systems, creating inefficiencies and risks around compliance and data integrity.

When a company is considering master data management, several elements must be in order:

- Data tag and field definitions must be consistent across the organization
- Group-specific trial balances must tie to accounting trial balances
- Governance models must meet stakeholder needs
- Data dictionaries must be kept up to date as the business grows and changes
- IT systems of record for data elements must be defined
- Processes and controls must be in place to make sure data remains aligned between IT systems

3 Lack of understanding of the "golden path" for revenue from initiation to subledger

The "golden path" is the scenario in which revenue flows seamlessly from initiation to recording without any exceptions. Due to the decentralized nature of revenue-related services, achieving this is often an extremely time-intensive discovery exercise.

The constantly evolving SOX environment also plays a role here. Too often, teams that "own" SOX do not communicate well with

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product and engineering teams. The disconnect means that neither SOX leaders nor product and engineering teams fully understand the financial risks associated with a company's core product. And as microservices are created and functionality is compartmentalized, the number of applications in-scope for SOX can expand significantly.

4 Inadequate controls design

The science of compliance is having controls in place and operating them properly. The art of compliance is identifying and designing the controls. To do so, companies must address the following all-too-common challenges.

Poor integration between traditional IT general control (ITGC) approaches and agile and waterfall-based systems
A microservices architecture enables agile development, allowing the rapid spin-up and deprecation of services. Therefore, SOX scope requires continuous validation. Numerous complexities must also be addressed around development, testing and monitoring of distributed systems.

A controls design also includes monitoring of application programming interfaces (APIs). Instead of traditional interfaces, APIs are mostly used for service-to-service data transfers. API call-failure monitoring and error resolution may not be easy to prove or test if appropriate tools are not implemented up front.

Inappropriate segregation of duties across platforms, corporate applications and businesses with a fluid environment
Most engineers in a microservices environment have elevated access so they can quickly make changes to enhance the product. These permissions need to be appropriately managed.

Other issues arise when there is (1) a lack of automation with deployment workflows and (2) a lack of appropriate access monitoring. Platform system access must be restricted as needed, and a detailed audit trail of system changes is mandatory.

Platform-based fraud
As a company's visibility grows post-IPO, so do threats. Platform-based theft includes location spoofing, coupon/discount-related deceit, inappropriate credits and fraudulent cash payments.

Management must assess platform access, determine what's appropriate (and what's not), and perform ongoing fraud assessments to calculate the material impact on the company.

Reliance on SOC reports
Companies that use third parties to manage their controls environment open themselves up to compliance risks.

Failure to monitor "emerging growth company" requirements
Companies that fail to monitor these SEC-related requirements as defined by the Securities Act of 1933 face slippage and/or noncompliance with SOX 404(b) regulations.

5 Technical accounting challenges

Platform companies often rely on custom systems along with a complex IT architecture to process transactions and perform accounting-related activities, especially for revenue. Technical accounting evaluations, including those contained within IT systems, must be completed quickly enough to align with financial reporting processes and timelines.

This can be difficult, because often, not only is revenue recognition complicated with customer, agent and principal considerations, but also the accounting for these considerations is often embedded in complex scripts and tables contained in the IT systems.

Once a company has become public, it's critical that IT, engineering, finance, accounting and operations work closely together to develop and maintain a robust accounting and reporting process and control environment that meet SEC and regulatory reporting and compliance requirements, forecasting needs and related timelines.

The importance of acting early

- Start early to address post-IPO considerations.
- Take steps to avoid potential internal control weaknesses and risk factors that could slow down the IPO process or result in cautionary disclosures that impact valuation.
- Prior to the IPO, remediate key gaps in skills, processes, policies and technology that support data management, accounting and reporting to reduce the risk of post-IPO disruption

Summary

- Companies focused on the needs of the engineering team can innovate quickly, but this model may present challenges when a fast-growing company approaches an IPO.
- Pre-IPO, companies must align and balance priorities and resources across finance, engineering and operations. Active, transparent communication is also vital.
- Post-IPO, companies must maintain a fast-growth mindset, while complying with new public company requirements. Robust processes, systems and controls to support timely, accurate reporting of financial results, forecasts, metrics and disclosures are critical.

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Contacts

Ken Englund
Principal,
Ernst & Young LLP
+1 916 218 1800
kenneth.englund@ey.com

Jackie Kelley
Partner,
Ernst & Young LLP
+1 949 437 0237
jacqueline.kelley@ey.com

Sanjay Khunti
Principal,
Ernst & Young LLP
+1 214 665 5374
sanjay.khunti@ey.com

Kevin Lavin
Partner,
Ernst & Young LLP
+1 415 894 8409
kevin.lavin@ey.com

Jake Plumer
Senior Manager,
Ernst & Young LLP
+1 415 894 8807
jake.plumer1@ey.com

Hardik Rathod
Senior Manager,
Ernst & Young LLP
+1 415 984 7225
hardik.rathod@ey.com

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