Building a Culture of Collaborative Innovation

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Helping companies to innovate through the power of developer communities
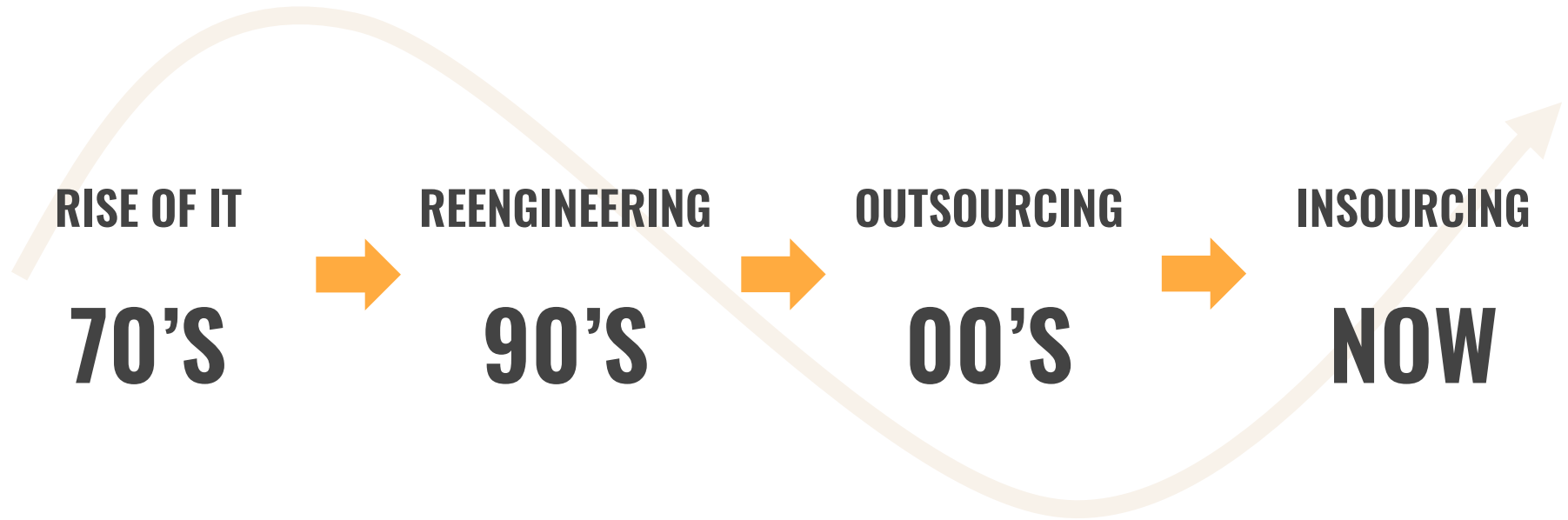
THE AGE OF THE DEVELOPER

Success in the Digital Age Requires Developers

The Journey of Enterprise IT…

RISE OF IT

70'S

➡️

REENGINEERING

90'S

➡️

OUTSOURCING

00'S

➡️

INSOURCING

NOW

Growth in Code

31M USERS & 100M REPOSITORIES*

> 100 MM

< 1 MM

2009　　　　2013　　　　2019

* Source: GitHub 2018

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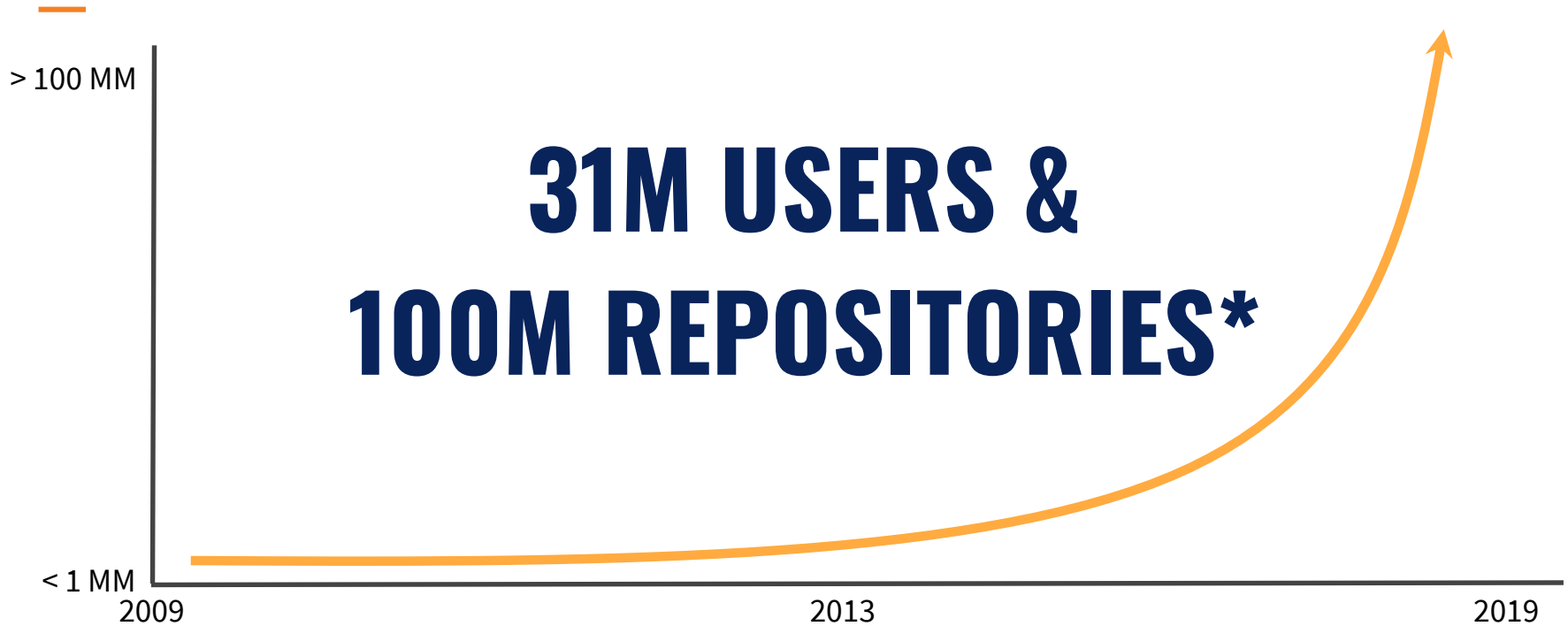
Stack Overflow: The World's Developer Community

58 Million + **18,000,000+** = **71,000**

Monthly Users   Questions   Users on Site Now

ALL THE WORLD'S DEVELOPERS   **ALL THE PROGRAMMING KNOWLEDGE**   **STACK OVERFLOW COMMUNITY**

What is Stack Overflow

How it works

Stack Overflow is a Q&A site for developers.
It's s all about **getting answers**.
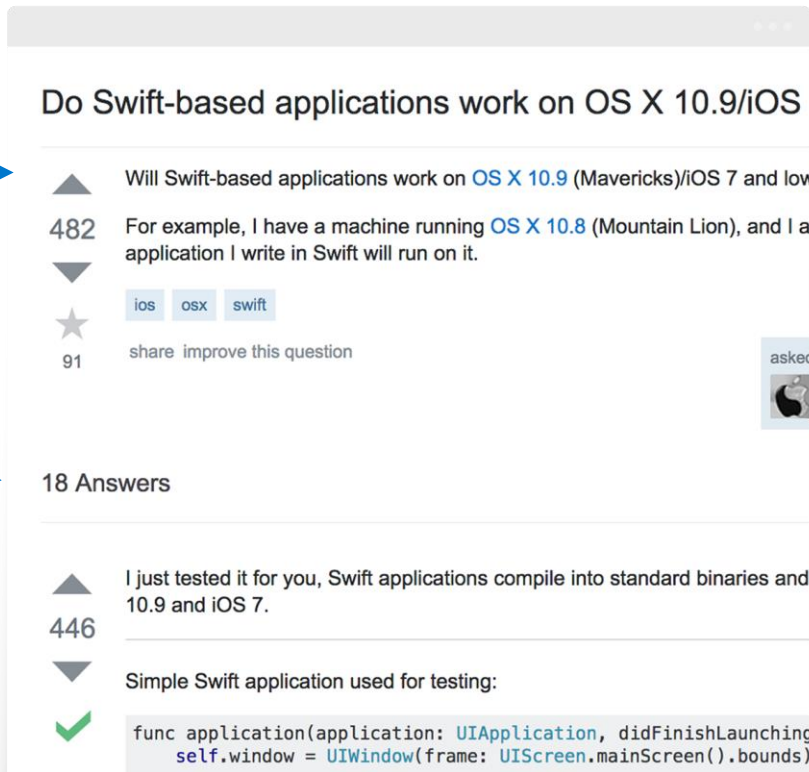It's not a discussion forum.
It is for objective answers.

Just **questions**… and **answers**.

Good answers are voted up and **rise to the top**. The best answers show up first so that they are always easy to find.

The person who asked can mark one answer as "accepted". Accepting doesn't mean it's the best answer, it just means that it worked for the person who asked.

Do Swift-based applications work on OS X 10.9/iOS

Will Swift-based applications work on OS X 10.9 (Mavericks)/iOS 7 and low

482

For example, I have a machine running OS X 10.8 (Mountain Lion), and I a application I write in Swift will run on it.

ios   osx   swift

91

share improve this question

asked

18 Answers

I just tested it for you, Swift applications compile into standard binaries and 10.9 and iOS 7.

446

Simple Swift application used for testing:

```
func application(application: UIApplication, didFinishLaunching
    self.window = UIWindow(frame: UIScreen.mainScreen().bounds)
```

Who is on Stack Overflow?

10,793,000
Full Stack Developers

1,634,000
DevOps & Network Engineers

1,206,000
Mobile Developers

474,600
ML & Data Scientists

1,498,000
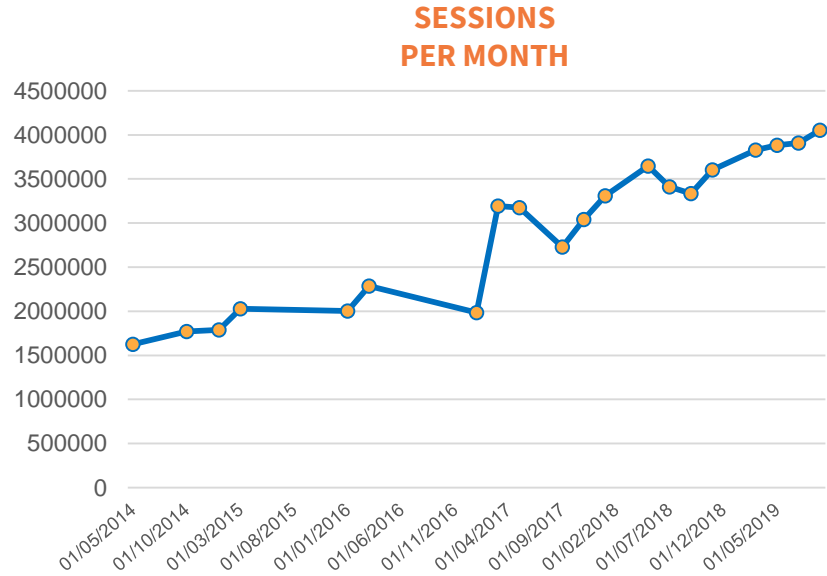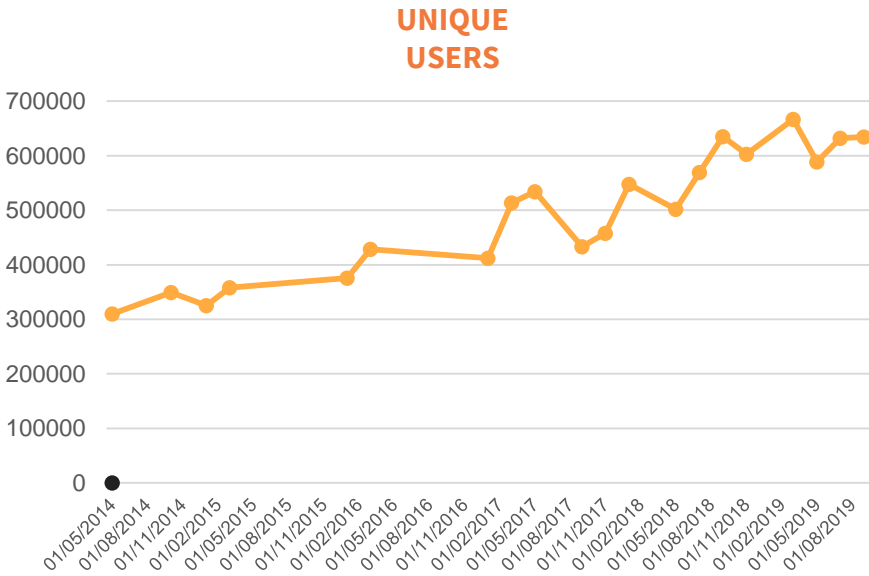Database Administrators

984,000
Embedded Systems Engineers

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Stack Overflow Users Across APAC

Country	Unique Users	Monthly Sessions
India	8,057,938	38,461,798
Indonesia	1,102,646	3,845,509
Australia	1,076,744	5,265,341
Philippines	956,430	3,104,654
Japan	916,879	3,928,304
South Korea	777,330	3,844,439
China	726,096	3,079,300
Vietnam	657,877	3,835,670
Singapore	566,198	2,670,214
Pakistan	531,093	2,498,745
Turkey	526,132	2,615,347
Taiwan	525,316	2,779,502
Hong Kong	492,246	2,145,307
Thailand	483,446	2,007,335
Malaysia	479,346	1,968,274
	17,875,717	82,049,739

Region	Users	Sessions	User %	Session %
APAC	17,875,717	82,049,739	37.14%	35.67%
NA	15,802,799	74,600,164	32.83%	32.44%
EUR	13,087,250	66,480,813	27.19%	28.91%
SA	1,365,381	6,865,393	2.84%	2.99%
	48,131,147	229,996,109	100.00%	100.00%

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Growth in the Vietnamese Developer Community

UNIQUE USERS

SESSIONS PER MONTH

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Ingredients for Collaborative Innovation
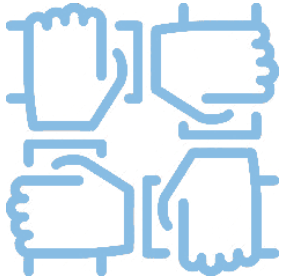
STRONG CULTURE

SKILLED TECH TALENT

KNOWLEDGE ARCHITECTURE

OPEN ECOSYSTEM

The Foundation for Fostering Innovation

Path of Collaboration & Knowledge Sharing Today

The traditional way of finding answers to problems in companies is inefficient, time-consuming, and does not capture answers in a way that is easily searchable.

Co-workers

Sharepoint/ Wikis

Chat over lunch

Email / Forums

Collaborative Innovation Needs a Community!

Capturing knowledge so that it is discoverable to users requires a community. The knowledge architecture therefore needs to make it easy for members of the community to contribute while reducing the administrative overhead
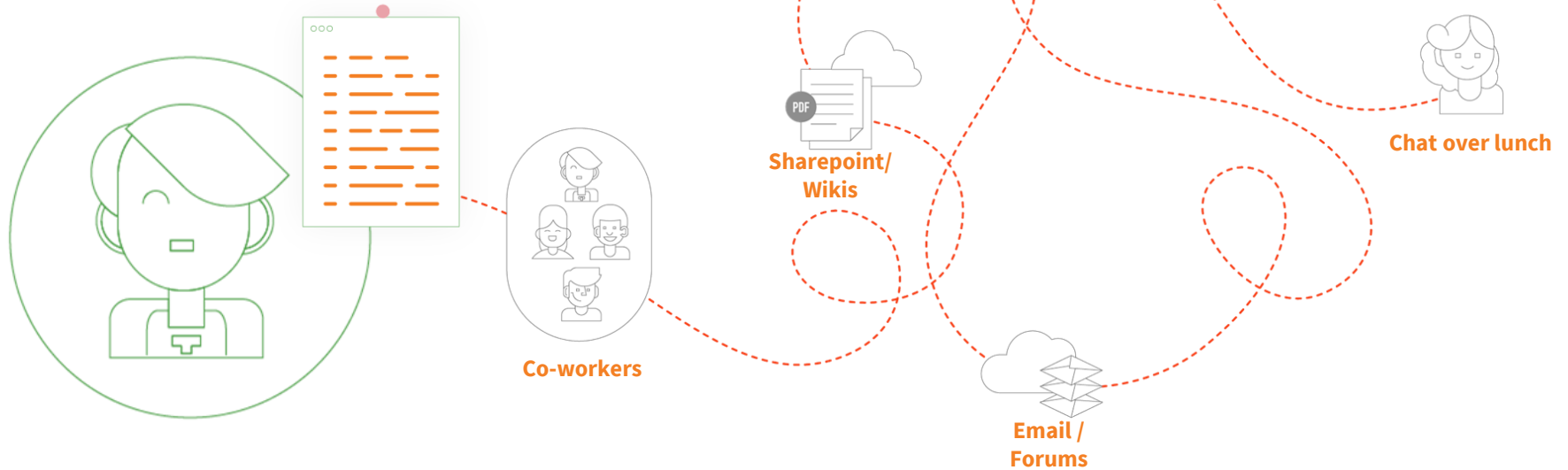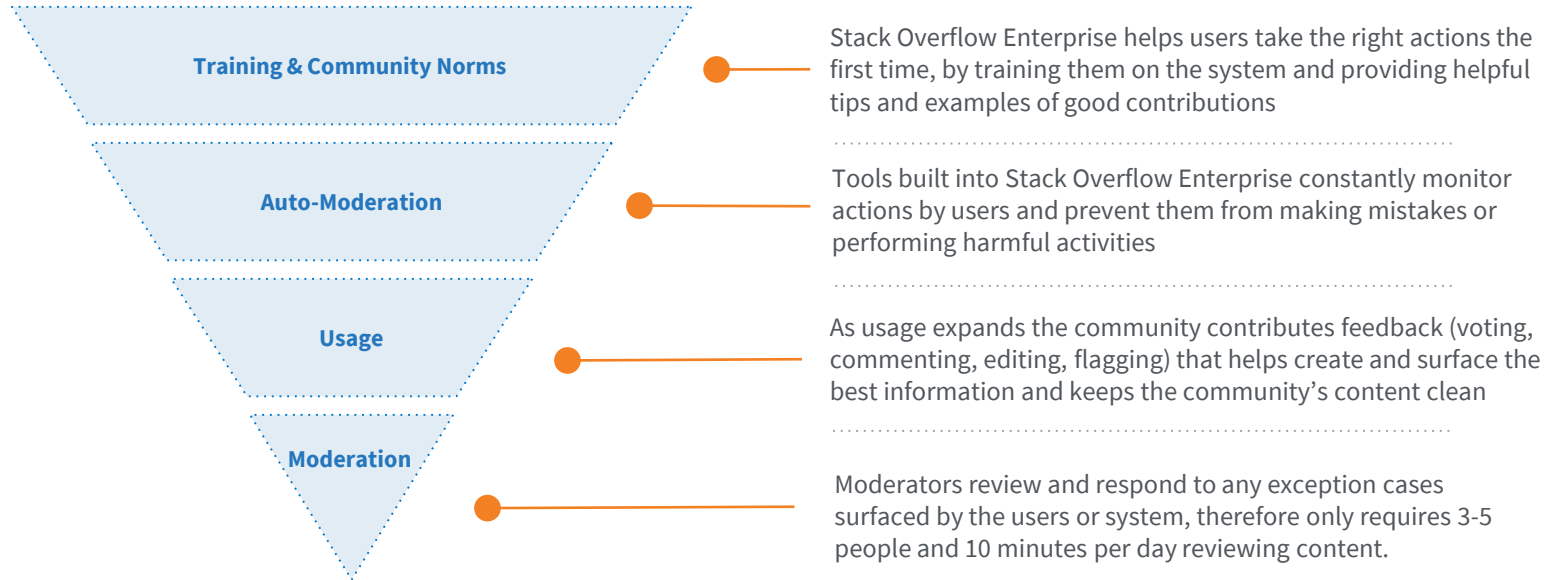
Training & Community Norms

Stack Overflow Enterprise helps users take the right actions the first time, by training them on the system and providing helpful tips and examples of good contributions

Auto-Moderation

Tools built into Stack Overflow Enterprise constantly monitor actions by users and prevent them from making mistakes or performing harmful activities

Usage

As usage expands the community contributes feedback (voting, commenting, editing, flagging) that helps create and surface the best information and keeps the community's content clean

Moderation

Moderators review and respond to any exception cases surfaced by the users or system, therefore only requires 3-5 people and 10 minutes per day reviewing content.

An Integrated Collaborative Knowledge Architecture

Documentation & Wikis
Long-form content &
reference materials

Project & Support Systems
Tracking and management of
projects and tasks

Developer Portal
Site for sharing code
and resources for devs

Trusted Source
Trusted, market-based store for
contextual, canonical content
managed by the user community

Search Utilities
Enterprise retrieval of
various content types

Messaging Application
Real-time communications
hub across team

**API & webhooks
framework work to
connect & distribute
knowledge across
systems to help
users maintain the
flow of their work**

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stackoverflow
ENTERPRISE

Client stories: Digital Banking Leader

CHANNELS
- ✓ Email
- ✓ Internal chat

PAIN POINTS

- ✓ Unknown level of support required

- ✓ Federated Development Model

- ✓ Lack of centralized feedback methods

FASTER PRODUCT DEVELOPMENT
Speed to market reduced

BETTER PRODUCTS
More fully tested MVPs

Product Team realizes faster, better product development and delivery

The Challenge
- Digital Product Management team was working on a project to create a public facing API platform
- Internal developer portal was created to capture learnings during project, however development practices were highly federated and lacked consistent tooling, processes, and centralized knowledge management
- Teams were building things in tandem without visibility into other projects
- Needed a solution that would allow API consumers and producers to collaborate across lines of business to rapidly build products, collect feedback, and meet an aggressive project timeline
- Additionally wanted to maximize self-service and minimize time-consuming direct support requests

The Solution
- After testing and failing with other Q&A platforms, they chose Stack Overflow Enterprise due to the familiarity and trust developers already had with Stack Overflow
- Originally deployed to the Digital team, adoption rapidly grew to other groups, creating a broader community and enabling faster product feedback loops
- Integrations to Stack Overflow Enterprise allowed visibility into what other teams were working on, fostering greater collaboration on projects and building of APIs for reusability
- Results were better API products and at least 20% faster product delivery as teams were able to build on top of something that already existed

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Client stories: Financial Services Company

CHANNELS
- ✓ Email
- ✓ Jive
- ✓ Internal chat

PAIN POINTS
- ✓ Small Team
- ✓ Inefficient Processes
- ✓ Support Blind Spots

EMAIL IMPACT
↓ 20%
SUPPORT REDUCTION
↓ 20+ Man Hours/month
KNOWLEDGE RETENTION
Daylighted & centralized critical systems info

Support Team reduces manual support burden through self-service

The Challenge
- Support Team tasked with servicing a critical legacy middleware platform
- Poor documentation meant that outgoing employees took knowledge with them
- Support workflows consisted of reading through email mailboxes, manually triaging, and either responding to them directly or forwarding to another team member
- Daily "open office hours" held to address customer questions requiring 3 or more team members answering same questions over and over
- Support unable to prioritize high priority queries from general information questions

The Solution
- Support Team began by posting FAQs and processes in Stack Overflow
- Implemented self-service workflow that guided users to Stack Overflow, and search or post a question only if their issue was not already addressed
- Created onboarding/offboarding process to capture crucial product knowledge in Q&A
- Led to 20+ man hours / month reduction of time required to hold daily office hours in the first 3 months
- Office hours eventually eliminated freeing Support engineers to moved out of their silos
- Support engineers focused on solving customer problems and making process and product improvements

Client stories: Leading Enterprise Technology Company

CHANNELS
- ✓ Email
- ✓ Phone
- ✓ Internal chat

PAIN POINTS
- ✓ Small Team
- ✓ Inefficient Processes

EMAIL IMPACT
↓ 30%

SUPPORT BURDEN
↓ 20%

FEATURE FOCUS
↑ 20%

Customer Success frees up time from inefficient processes to focus on product

The Challenge
- The Developer Tools Customer Success team was overloaded supporting more engineers using even more tools
- Could not scale up their manual email support workflow and help with tools adoption at same time
- Needed a way to ensure engineers received high quality answers to their questions in a timely fashion

The Solution
- Realized they were double handling support queries and needed a better workflow to triage different issues and workstreams
- Customer Success pivoted the workflow to have a team dedicated to monitoring and answering questions to the [cs-*] tags on Stack Overflow
- Customer Success still monitor Stack Overflow, but now focused more of their time with product feature teams
- Success of this new workflow showed in the high question to answer ratio on monitored tags
- Turned off email support and directed all queries via auto-responder to either Stack Overflow or other escalation support channels

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Client stories: Big Data Technology Pioneer

CHANNELS
- ☑ Email
- ☑ Slack

PAIN POINTS
- ☑ Small Team
- ☑ Inefficient processes

SUPPORT EFFICIENCY
↑ 20%

BEST PRACTICES
Support Model became standard for other product teams

Improved support processes enable team to significantly increase efficiency
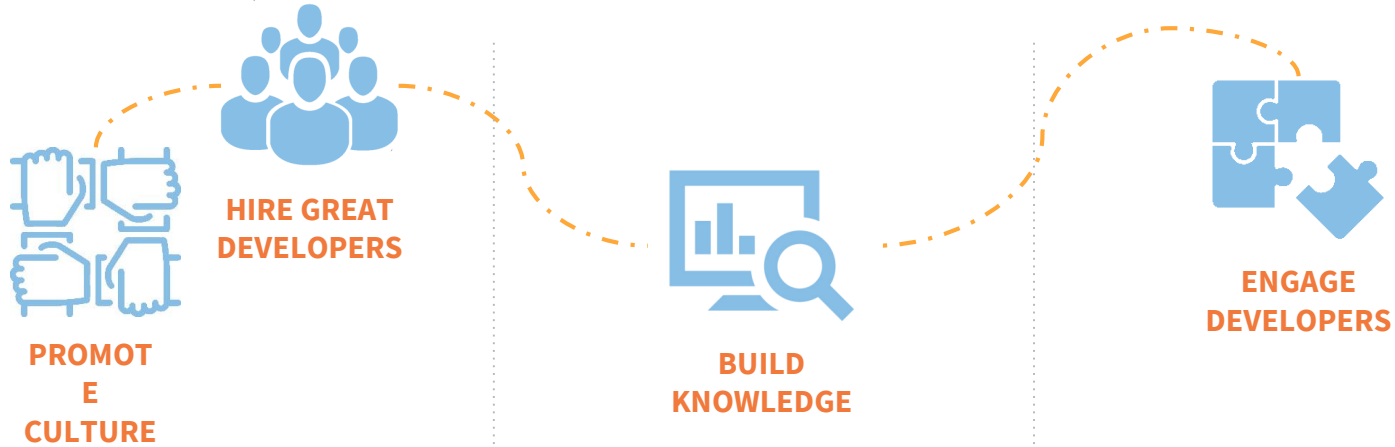
The Challenge
- Internal Product Support Team was severely resource constrained and unable to scale to address support burden through email threads and Slack channels
- Lack of easy search in Slack channels and email meant support spent a great deal of time answering the same questions over again
- Internal documentation and tracking tools were adequate to track issues but not optimal to search and track new questions, reducing overall support efficiency

The Solution
- The Support Team analyzed their current processes and incorporated Stack Overflow into their workflow
- Seeded the platform with high-quality, frequently asked questions creating examples of excellent, evergreen content that was centralized and searchable
- Socialize their new support workflows and establish explicit use cases and instructions for Stack Overflow for users
- Established escalation channels and tapped local champions to encourage the use of Stack Overflow
- Result has been an 20% increase in overall efficiency and a repeatable support model that has also been adopted successfully by other product teams

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Stack Overflow Solution Offerings

HIRE GREAT DEVELOPERS

PROMOTE CULTURE

BUILD KNOWLEDGE

ENGAGE DEVELOPERS

stack overflow TALENT

stack overflow FOR ENTERPRISE

stack overflow ENGAGEMENT

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Thanks!

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For any questions, please contact

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