SERVICE BLUEPRINT:

INTEGRATING EXTERNAL HACKER INNOVATION COMMUNITES WITH INTERNAL R&D TEAMS

TIMELINE — 0-24 MONTHS — 24 MONTHS+

SERVICE STAGES	AWARE	JOIN	USE	DEVELOP	LEAVE / STAY
	Post product purchase, the consumer should be made aware of the developer community, what it does, how it works, how to get started and how to get contributing through testing, feedback and general development.	When a consumer decides to become an innovator of strategic use to the firm, a swift user verification and validation process should complete to allow quick access.	Once a user has been given developer access through screening, all the relevant tools and documentation should be made easily available to start developing and engage with the community to contribute to the internal R&D engine.	Now the user is a collaboration partner, the innovation platform allows efficient knowledge flows from external hacker developers with internal R&D personnel. Multiple sources of codified knowledge flow across boundaries.	User may stay or leave at any point

USE STAGES	RESEARCH	UNLOCK	RESEARCH	IMPLEMENT	INNOVATE
	PURCHASE	OPEN MODULARITY	DEVELOPER SELECTION	INSTALLATION & SETUP	UPDATES, ONGOING DEVELOPMENT & INNOVATION CYCLES

INTERACTION LINE

FRONT STAGE PROCESSES

STAGE EVIDENCE	CONSUMER ACTIONS	FRONT STAGE EMPLOYEE ACTIONS
Device purchased	Online virtual Store physical visit	Transataction by virtual means or physical means collecting customer information
Hacking & developing information accessed on firm site	Registers online with application to have full develop API access	Automatic content management system (CMS) application
Once registered, info sought to unlock device easily	Access pages on news, updates, general portal information as a new user	Regularly updating CMS with new content released, new documentation
Access to source control, SDK & API's to start collaborative development	Read help files, install source control, setup repositories, pull code down fto start development	Up to date help on setting up repositories, code documentation & general how-to knowledge
Access to development tools, bootloaders, kernels, ROMs, radios, tools, pre-releases & beta	Downloads new content, reads changelogs & updates. Installs & tests new releases with feedback	Providing open dialogue on latest software releases. Engages with community queries & problems solving
Gathers relevant tools for personal device unlock & installation	Downloads all necessary tools to unlock & enable development	None required
Hacker innovator profile authoring & community selection	Searches through highest ranked community developers to install ROMs/Kernels or to work with	Community profile page administration & editing if necessary
Developer project homepage browsing & interaction	Reading developer profile pages with latest software releases to the community	General systems admin of front & back end systems. Editing where necessary
Finds desired hacker innovator software to install, ty & test out	Download installation ROMs, Kernels, Firmware etc from firm hosted cloud services	None required
Community authored collaborative articles & how-to's	Reads & writes new content (fixes, how-to's, help files) for other community members	Content quality checking & administration where necessary
Reads community knowledge and documentation on a wiki	Authors, edits, amends, contributes to community knowledge base from new learning	Content quality checking & editing where necessary
Book time with an internal community outreach member	Logs in & books a slot with a developer on a calendar	Maintaining availability internally with developers, making changes where necessary
Apply for free developer hardware	Enters a competition to win free hardware to develop on based upon level & quality of contributions	Managing competitions, times, dates, products & selecting winners regularly
Apply for new competiton to win prizes	Enters a competition to win various company products & accessories based upon outputs	Managing competitions & selecting winners. Sending out prizes. Social media publicity
Find & submit new bugs & issues to internal/external developers	Fills out issue & bug tracking form directly to internal developer teams for resolution & testing	Maintaining bug tracking & reporting systems. Make sure resolved issues removed & archived
Community & firm voted-up development projects	Hacker developer projects & features up-voted by all stakeholders	R&D teams regularly assessing & voting on best community projects & developments to absorb internally
Submits requests for new feature & unmet needs found within community project development	Tests new features & functionalities, finding problems in need of a solution to submit to the portal	Engagement with the latest issues, highlighting most prevalent for community attention
Engage with community outreach members	Ask questions directly to internal community outreach members. Allow knowledge flows int/externally	Provide support & time for swift responses to community questions that stifle development
Gain information from full device tree documentation	Has a particular query regarding a specific software blob & finds the solution through documentation	Provide detailed internal device tree documentation with source control & wiki pages
Fill out research requests by the internal R&D, marketing & design teams	Offer insights to user centered design issues from lead consumers	Submit requests with rewards for user participation in new qualitative & quantitative research projects
Offer critical feedback & suggestions to internal R&D	Submit feedback forms, speak to internal members directly for critically constructive feedback	Feedback response members via calls, chat, email, private messaging channels
Private messaging other members & internal developers seamlessly	Internal & external community members have boundary'less collaboration potential	Private messaging made possible internally & externally in two way communication internal/externally
Contributes to online discussion forum with community AND firm	Submits replies, posts new threads for two way dialogue between community & firm	Takes part in the community development dialogue. Posts internal thread content from R&D
Buys new handset & leaves community or decides to stay & continue collaborative development	Buys different manufacturer handset or upgrades existing brand due to brand loyalty developed	Offers & benefits to hacker-innovators to remain in the community. Offers & deals for active participants

VISIBILITY LINE

BACK STAGE PROCESSES

BACK STAGE EMPLOYEE ACTIONS	SUPPORT PROCESSES
Customer information centrally stored for future marketing	Warranty clock starts ticking
Application checked & verified as genuine. Access granted where deemed suitable	Automatic entry into hacker innovator user database & management CMS
Checking content relevancy & regularly updating with new content	System maintenance & QOS administration of new content added
Managing & adding new repositories, commenting & documenting new source trees	Giving support to user code requests. Being active in community collaborative coding
Adding new source code with documentation & help files	Community outreach team there to answer questions & queries developers encounter
Adding & maintaining documentation of new code releases	Systems admin & infrastructure maintenance to serve content without issue
Adding new features to allow community innovators to more efficiently & smoothly achieve desire goals	Maintenance & development of community portal features, functionalities & hosting
Managing new developer applications & approvals to start authoring new content online	File hosting maintenance, new feature development & implementation
Cloud servie integrity maintenance & upgrades where necessary	Server download traffic load balancing where required for particulary popular projects
Maintaining scalability of content hosting & expansion over time	Provide additional community documentation content where required with new firm developments
Provide as much content available on the front end as possible from internal R&D department	None required
Developer takes notes on the nature of the development request & finds suitable colleague for the meeting	Allocating request types to developer types within the R&D department to ensure meeting is productive & useful
Procures prizes regularly. Process applications	Systems admin for running competitions with registered user-hackers
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Regularly checking & assigning bugs to relevant internal developers for verification, testing & solving	Resolution of bugs, updating tickets & notifying of resolution to the community & internal R&D teams
Automatically selecting highest voted external projects for internal validation before implementation	Screening ideas to test for feasibility with strategic business goals of the firm & wider adopter categories
Most significant new requests submitted to internal R&D team for validation, testing & resolution.	Engage with small developer teams externally to test, debug, suggest solutions. General co-creation process
Answer private messages, forums, tickets, requests, bug trackers.	Provide ansers to support questions & queries from multiple hacker developer touch points in the system
Ensure documentation is up to date, detailed & relevant to solve queries & question arising externally	Ensure internal developers habitually document all stages & phases of code where possible
Carefully structured research surveys, questionaires, online focus groups, meetups & conferencing	Analyse & report research findings to relevant internal teams to inform next development cycles & designs
Report most relevant findings to internal R&D teams for further evaluation & implementation	Manage critical submissions internally on a issue tracker with up voting for higher priority issues
Outreach member can directly respond to high ranking external developers in two way communication	Facilitate & maintain two way private messaging systems
Finds & writes new thread content. Forwards queries internally for responses	Maintenance, development & moderating of community/firm forum & topic threads
Incentivises community members to remain active with the community after product end of life	Messaging systems with offers to hacker innovator's to maintain membership & collaboration

INTERNAL LINE

MIKE PINDER

Service Design Blueprint: Integrating External Hacker Innovation Communities with Internal R&D Teams

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