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IVEY

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EXERCISEAPP

Corey Rochkin wrote this case under the supervision of Professors Barbara L. Marcolin and Ning Su solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

Randy Bowen, chief executive officer (CEO) and founder of ExerciseApp,[1] decided to take the plunge and spec out the features for his new iPhone mobile application and supporting website. Bowen planned for ExerciseApp to download exercise workouts from professional (pro) athletes to followers who wanted to "Train. Play. Be. Like the Pros" and get an edge on their workouts. As Bowen envisioned the application, he realized he would need a lot of help to tackle the technology and the setup of this entrepreneurial venture in order to successfully bring it to market. With just enough funding to last the next eight months, Bowen had to prepare himself for the coming launch of ExerciseApp, hoping to attract additional funding in the process.

RANDY BOWEN AND THE CREATION OF EXERCISEAPP

Bowen always knew he wanted to start a venture and had invested much time over the past few years networking with other entrepreneurs and investors, while brainstorming potential business ideas. His past experience in launching businesses, including a mobile and online trading platform, had equipped him with some understanding of what a venture needed to succeed.

As an amateur athlete and competitive swimmer, Bowen attended sports camps when he was younger and had been mentored by professional athletes. Bowen realized the value of having his favourite athletes motivating him. Out of all the existing fitness applications, none catered to the needs of amateur athletes who were looking to supplement current coaching and workout plans. Bowen believed many amateurs wanted to be like their favourite professional athletes — to be like them, they had to train like them.

ExerciseApp was not Bowen's only idea, but he knew he had limited resources. He began with only his credit cards and a Cdn$20,000[2] line of credit. Bowen was able to convince his friend Tim Smith,[3] an all-star defenseman in the National Lacrosse League and a Mann Cup Champion, to be his first athlete. Smith then helped attract other athletes. Armed with letters of intent and sample videos from these athletes who

[1] *This general experience case is disguised.*
[2] *All funds are in Canadian dollars unless specified otherwise.*
[3] *Fictitious name*

were willing to develop content and beta test the platform, Bowen approached some of the investors he had met while networking and brought on an additional $25,000 in seed money. Only with these actual tangible results was Bowen able to work on closing larger amounts of funding and pursue government funding such as the Business Development Bank[4] and NRC-IRAP.[5]

THE BUSINESS MODEL

Bowen found a niche by focusing on amateur athletes' desire to be like their favourite professional athletes. He also knew that a tool for professional athletes to interact with their fan-bases would be very valuable to the pros. This application would enable these pro athletes to grow and monetize their fan-bases, while extending their careers past their active professional employment. They could maintain the relevance of their brands and maximize the value they extracted from fans while playing. The use of elite professional athletes who connected directly with their followers in a unique way would be very hard for competitors to easily copy. ExerciseApp gained first mover advantage and benefited from an innovative spirit that would be important in maintaining this leading position. Bowen could also leverage the brand of the athletes to attract users, turning the pros into the application's marketing engines.

Bowen designed the application to attract the athletes' fans and engage them through free workout samples. The fans had to pay $3 for a complete 40-minute session that they would then own and could access as many times as they liked. This price was a premium relative to alternatives, but Bowen believed using professional athletes to guide users through workouts justified the inflated price. Of the $3, only approximatly 30 per cent to 35 per cent was returned to ExerciseApp. A 30 per cent royalty had to go to the operating system developer. Bowen then provided a 5 per cent to 10 per cent royalty to agents and financial advisors who helped him bring pro-athletes on board. The remaining 30 per cent went to the athletes, creating almost an equal partnership between the athletes and ExerciseApp.The fans also had access to supporting materials, including blogs, links and advice from the athletes and were encouraged to rate the workout sessions through Twitter and Facebook.

If ExerciseApp was to be a success, co-creating exercise video content and website features with athletes would be critical. Bowen realized he did not know how many professional athletes he needed, in what order they would be needed, how much time each athlete would need to commit, or what tools he would need to provide for these athletes. These were questions Bowen had to answer. He understood the interdependence between the athletes' and fans' use of the application and the value both parties could derive from it, but that the time each athlete would need to commit would have to be minimized in order for the athletes to be willing to participate. Athlete time was very valuable and would be a high priority for feature creation.

Business Services Value Chain

Bowen learned about the concept of open services innovation and decided to include these ideas as a part of his ExerciseApp business model. Business services value chain included systems thinking that featured

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[4] The Business Development Bank of Canada (BDC) is a financial institution owned by the government of Canada with the mandate to finance qualified growing small and medium sized businesses in Canada. The BDC offers a range of financing options, but generally require at least twelve months of sales to qualify. http://www.bdc.ca

[5] National Research Council of Canada's (NRC) Industrial Research Assistance Program (IRAP) provides funding and other services to small and media- sized businesses in Canada to be invested into technology innovation. Factors evaluated include the company's and management's ability to achieve the result proposed and their plan with the developed technology. http://www.nrc-cnrc.gc.ca/eng/irap/services/financial_assistance.html

input-processing-output as central ideas in technology business models Bowen knew these concepts had to be part of his business decisions, including how he would structure the organization and what internal systems he would put into place.

Primary concepts of applying Open Services[6] thinking included positioning ExerciseApp to its customer as a "service-oriented" technology business, rather than a more traditional "product-oriented" technology business. In their delivery to customers, the services would wrap around the products and technologies. Other significant concepts included defining parts of a product and services ecosystem[6] that saw partners, content experts, and collaborators working together in developing iterations of the technology. This ecosystem of co-creation had appealing resources and skills ExerciseApp could employ in a pilot or at full launch.

Bowen would need to define both customer and supplier co-creation processes to ensure successful retention and growth. He realized these co-creation processes were quite similar (see Exhibit 1). The customer co-creation ideas follow Chesbrough's co-creation techniques and the service usage experiences need to describe the user's workout experience points. The main suppliers to Bowen's business were athletes providing workout videos and social media content delivered to their followers. Asynchronous and live synchronized workouts would offer great flexibility to athletes and improved excitement for customers. Bowen also had to consider that other suppliers, including gyms, filming companies, testers and testing sites, and other potential customer groups, would impact his services value chain ecosystem.

TECHNOLOGY STRUCTURING

As Bowen pictured the usage scenarios in his mind (see Exhibit 2), he defined many of his wants and needs, but also understood he did not have all the necessary technological knowledge. The usage scenarios would need to be translated into use cases, a potential task for his IT team. He would certainly need to be available for questions as Bowen had to ensure ExerciseApp provided a good experience for both the athletes and fans. In order to bring these elements together, Bowen had to form an agile team to develop quickly and create a testable user experience with the limited time and funds available.

As CEO, Bowen managed all support and business development functions, including finance, human resources and sales. He brought together a small, yet highly entrepreneurial team with diverse skillsets, relying primarily on equity for remuneration. Bowen knew he had to be cautious to ensure the equity was effectively managed to maintain enough for future investors, while maintaining his controlling interest. He brought on two of the top 100 iPhone developers in the world, but still needed a CTO, a research director, a manager for professional athletes and a network operator to prepare for growth. Bowen had already had to release a few contract-based employees who did not have the necessary skillsets.

Bowen had to decide how he would merge the agile development process used by the developers with the customer and supplier co-creation processes. He also had to set up the development group roles and responsibilities, and create the supporting agile development toolkits to ensure code was produced quickly in sprints and modules.

With only two developers at his side, Bowen tentatively began with the iPhone architecture for the mobile platform to complement the web-based platform. Based on the success of the iPhone application, Bowen and his team would choose if and when to launch on Google's Android and RIM's BlackBerry platforms.

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[6] *Henry Chesbrough, Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era, Jossey-Bass, A Wiley Imprint, San Francisco, 2011, Chapter 2, Figure 2.2 Open Services Value Chain, p. 35.*

Bowen remained unsure about how many IT platforms they could create at once. If they could not create all, he would have to decide on the order.

The Mobile Architecture

While many of iPhone's and Android's specifications were similar, Apple's iOS was developed in Objective-C and XCode, while the Android application would need to be developed in Java (see Exhibit 3). While the supporting architectures could be shared, a different front-end would have to be developed for each platform. The first platform developed would take six months and $100,000, but then the second would only take four months and $60,000.

Supporting Website Architecture

The developers had already begun developing the supporting website architecture (see Exhibit 4) with MySQL databases, a leading open-source database recently purchased by Oracle, on Kumulos's servers, with a Gravity Labs Multimedia Server to store the videos. The website played a crucial role as it would include the primary athlete content editing dashboard.

User Feature Selection

Bowen needed to quickly decide which features to build for the iPhone application. An entrepreneurship faculty member suggested the developers create all the technology, but Bowen was not certain about this strategy. His system development classes suggested methods for Bowen to identify these features and build business-focused roadmaps. With the help of a systems faculty member, Bowen began a process of defining these features. He realized there was no way the developers knew of all the features he had conceived of so far. To create all the specifications and systems needed, developers would have to define the architectures with operating systems, devices, basic standards and development toolkits. Bowen would need to create the advanced features and usage situation features he envisioned. The ideas of open services innovation drove him to outline the usage scenarios and service blueprints that mapped out the processes within the business's ecosystem.

Tension arose between the two developers and Bowen as the push for both an agile development method and systems thinking began to take its toll. Bowen pushed for use of the fast features process, a process in which technology and feature options are continually matched and re-matched to the evolving needs of the customer and company's resources. The initial list of features was primarily determined by the developers because the majority of the initial work had to be focused on setting up the IT platform. Bowen now had to implement a process in which suppliers (i.e., professional athletes), management and development teams could all decide on the feature priorities and delivery schedule. He also had to decide when to bring real customers into this process.

Bowen knew it was not only critical to bring the application quickly to market but that the application also had to be exceptional. Early poor reviews and ratings would sink the business shortly after the launch and risk destroying the reputations of the professional athletes involved. Bowen believed fans would likely first download and use the application at home; only if the first experience was compelling enough would they then pay for workouts and actually use the application at the gym.

Performance Criteria

Bowen not only needed strict performance criteria to ensure an optimum user experience, but also had to collect and analyse data on usage measures for determining success metrics and where future improvements would be required (see Exhibit 5). With all this sensitive data being collected, Bowen had to consider its protection and security according to the laws and ethics councils. He had to define exactly what data he wanted to collect, how to analyse it and how to protect it.

Research Pilot

Once a testable application was developed, Bowen wanted to run a research pilot with delivery experts to test the integrated usage experience points in its entirety with sample polished video content, sample social media feeds, polished icons and graphics, workable and scalable telecommunications infrastructure, fun exercise events over a few weeks for about 30 people, website support material and the athlete video creation dashboard. In order to build a compelling technology value proposition, Bowen would require this research data as evidence to devise the value statements, which then could be used to gain the confidence of users, athletes, customers and investors.

In designing the data collection during testing, Bowen had to decide what data to collect and what he wanted to learn from the data. This would include evaluating the functionality and processes of the software and effectiveness in improving users' exercise habits. He also needed to use this opportunity to better understand the athletes and fans so he could uncover what truly motivated them to use ExerciseApp. Bowen's research questions surrounded business, usage, technical, co-creating processes and evidence-based outcomes (e.g., improved exercise, avoided harmful exercises, increased quality of exercise technique).

Bowen planned for the application to go through multiple levels of testing, from individual units and features, through to the multiple stages of the application as a whole. Bowen had to decide which features to include in the various stages of testing and who should be a part of these stages. Single testers could include Bowen himself, athletes, the research director, non-hostile potential customers, friends and family. Bowen realized, at later stages, he would need a larger and more objective sample.

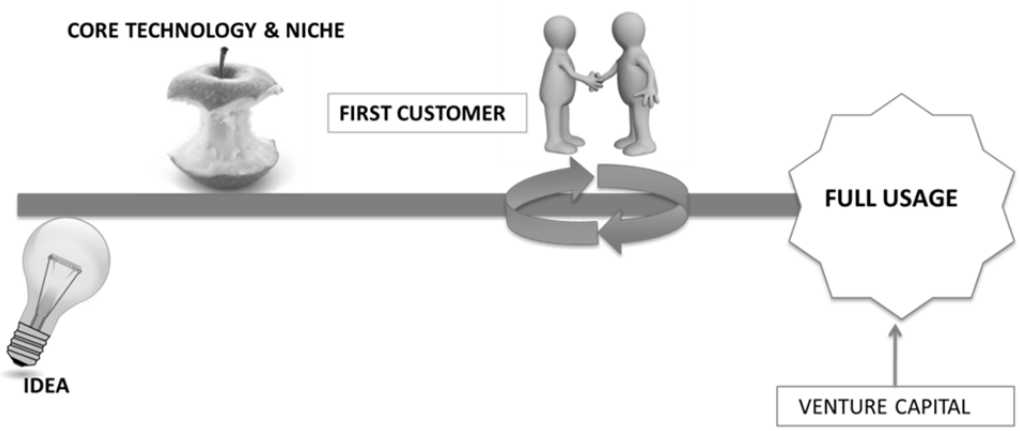
ISSUES REALIZED ALONG THE WAY

Bowen faced a few issues with his original business plan that he had to resolve before launching. He discovered the iPhone handhelds posed problems when exercising — the user's hands were busy and it was not clear how they would modify the technology for that usage situation. Holders and wristbands were an acceptable stop-gap measure, but Bowen wanted to reach non-invasive technology as a part of the long-term platform roadmap. Bowen also realized he had underestimated how important the user experience for the athletes would be. He had to ensure they could easily upload and customize their workouts without having to commit too much of their valuable time.

As he sat in his office, Bowen began to lay out his remaining decisions. These included defining the structure of his team, outlining user features and roadmap for both the fans and the athletes, defining the plans for testing and proving the technology, orienting his developers and management team to the direction he wanted to take, finalizing his business, and locating more professional athletes, all while working in a cash-strapped environment while trying to raise more funding.

Exhibit 1

FAST FEATURES: CO-CREATING SYSTEMS IN FAST-PACED WORK PLACES



Source: Barbara L. Marcolin, 2012.

Exhibit 2a

USE SCENARIOS

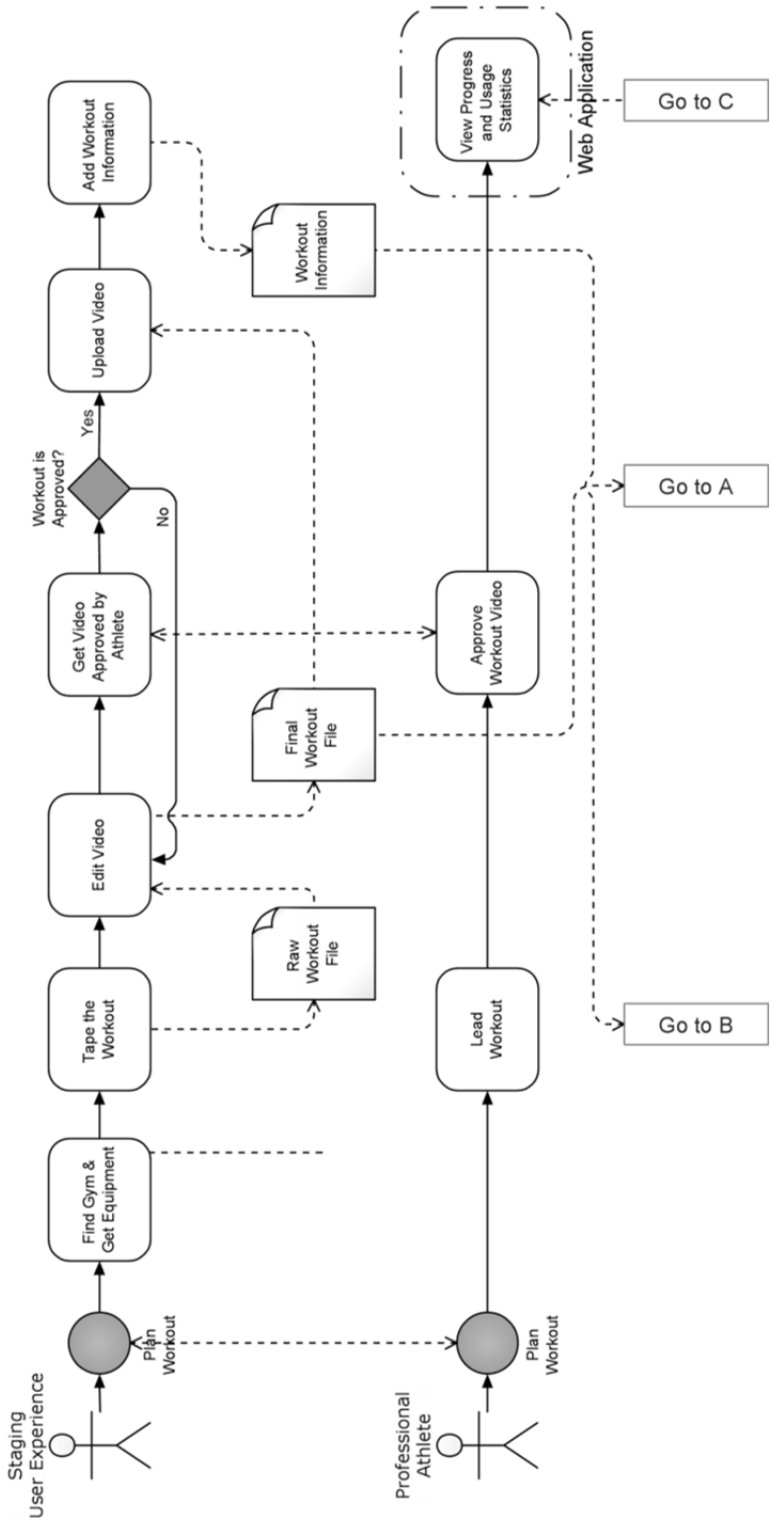
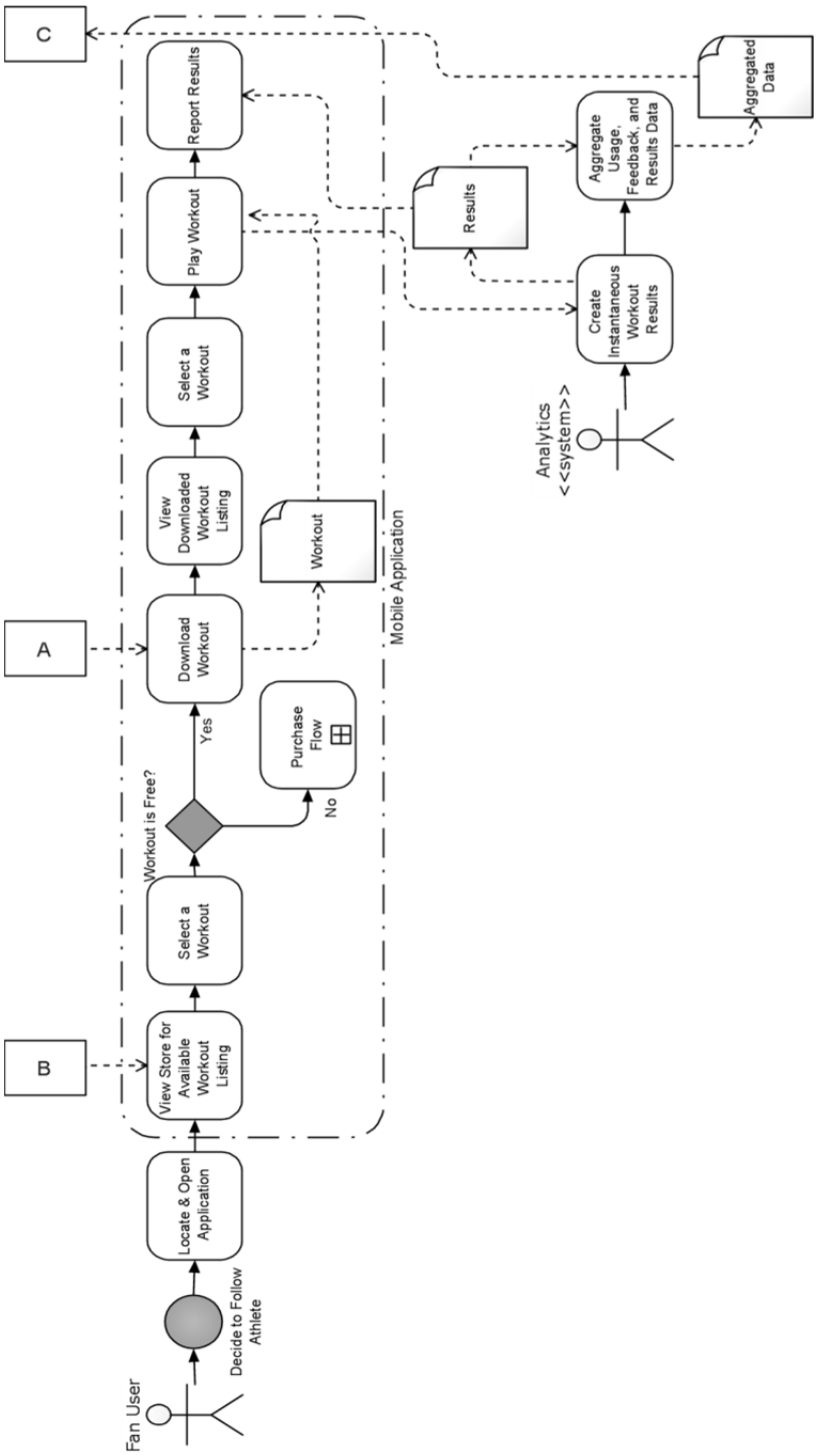


Exhibit 2b

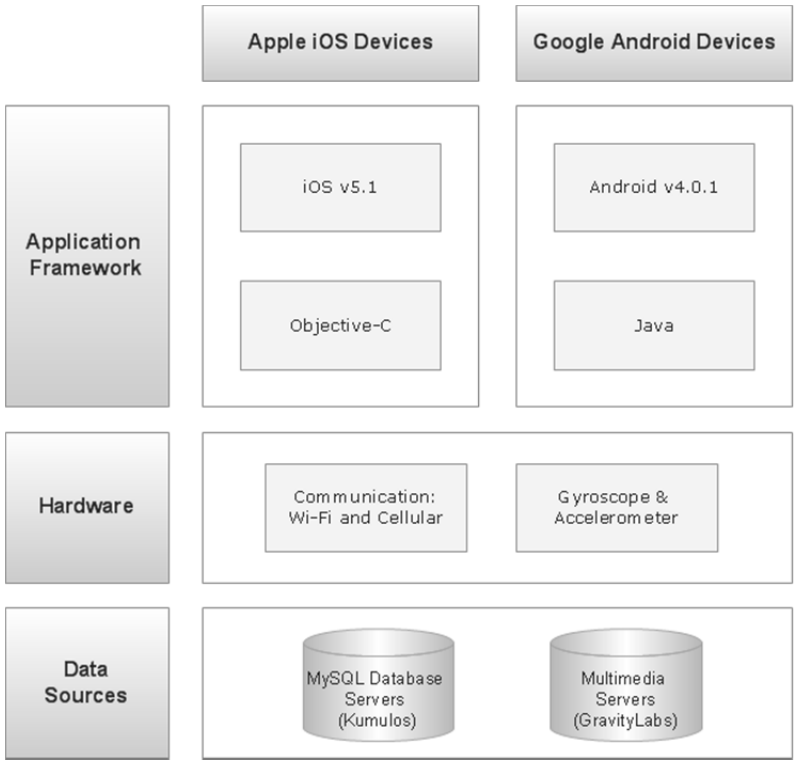
USE SCENARIOS



Source: Created for case based on company documentation.

Exhibit 3

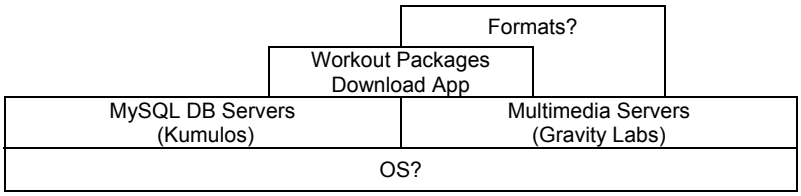
MOBILE ARCHITECTURE



Source: Created for case based on company documentation

Exhibit 4

Website Architecture



Source: Created for case based on company documentation.

Exhibit 5

PERFORMANCE CRITERIA

Technical Performance Criteria

- IT Platform Reliability uptime of 99.9999%, disk usage, screen load times, off-line videos, serviceability, support, in-house servicing.

Usage Experience Performance Criteria

- Mobile platform compatibility (iPhone, Android, BlackBerry)
- App Installability
- iOS Human Interface Guidelines
- Adaptability of iOS to Android platform
- Fast Code Verification process for iOS app review (3 days)
- Meantime to Repair (minor bugs 4 days, significant bugs 8 days)
- Extensibility to add future features

Business Performance Criteria

- Fast pivot flexibility
- Demonstrate metrics showing ExerciseApp
  - Improves access to experts
  - Minimizes financial barriers
  - Increases motivation to exercise
  - Produces more activity than journaling

Source: Created for case based on company documentation.