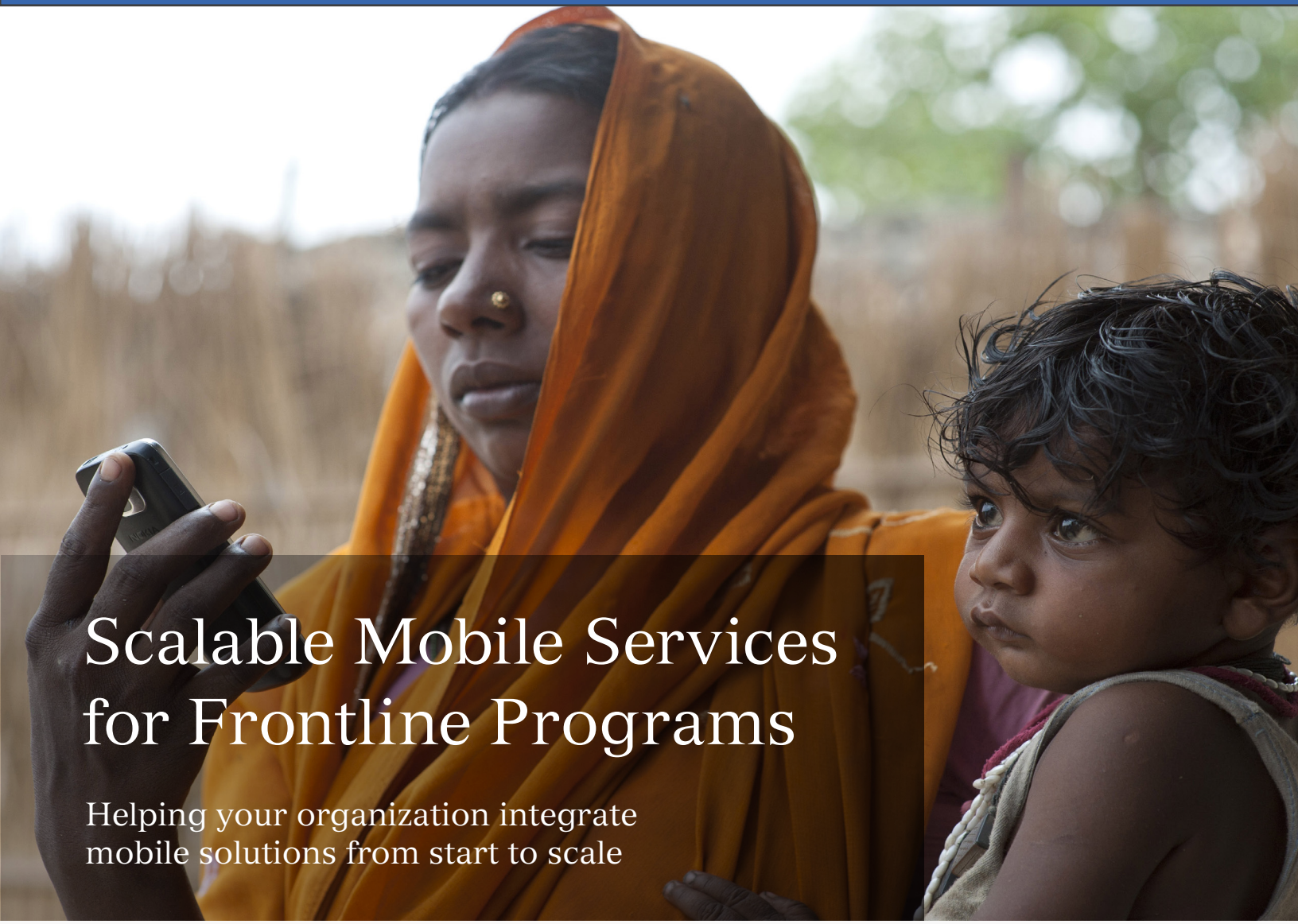
dimagi

Dimagi delivers open source and innovative technology to underserved communities around the world.



Scalable Mobile Services for Frontline Programs

Helping your organization integrate mobile solutions from start to scale

OVERVIEW

At Dimagi, we build open source, cloud products that support the complex workflows required to strengthen frontline programs. Cloud products (e.g., Salesforce, SurveyMonkey, Dropbox) are increasingly popular as they dramatically reduce running costs and enable organizations to do complex tasks themselves without having to set up a server or hire programmers. Cloud products are also the prominent solution for mobile services (mServices) tasks that require simple workflows (e.g., FormHub, Magpi). We expect cloud products to also emerge as the most successful mServices technologies for advanced workflows, including supporting Frontline Workers (FLWs) and supply chains. Open source solutions will be required for any program expected to scale nationally and be transferred to local ownership.

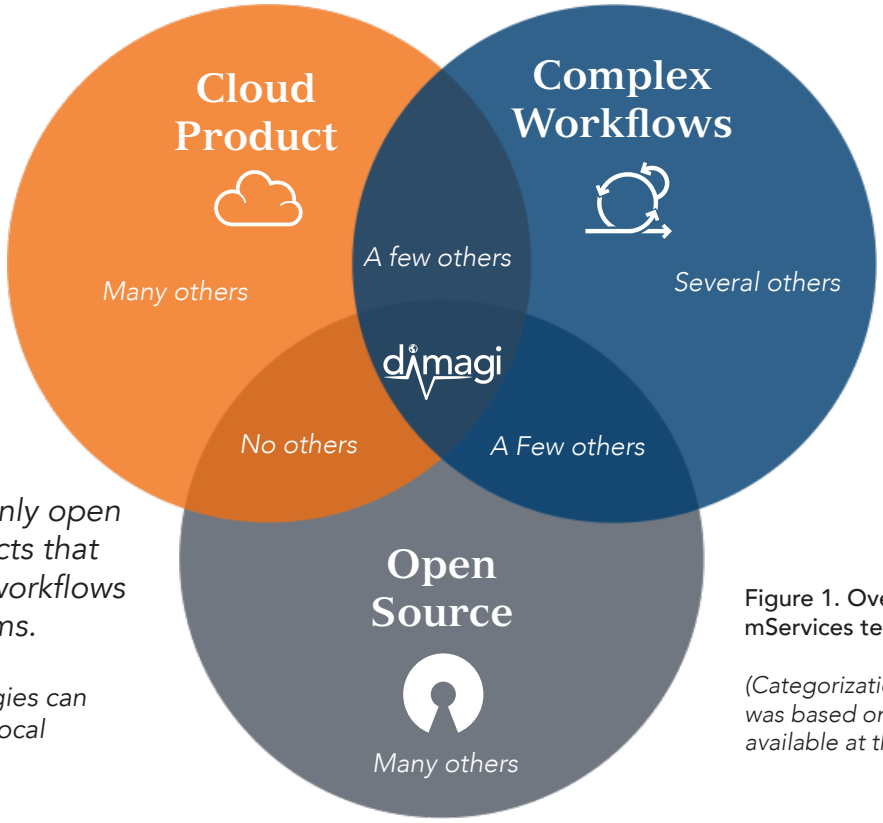
Definitions

Cloud Products: much less expensive than alternatives, especially as a project matures

Complex Workflows: essential for supporting frontline workers (logic, client tracking), but not for simpler mServices tasks

Open Source: essential for government handoff and implementation at scale

Three important criteria for scalable software to support FLWs



Dimagi builds the only open source cloud products that support advanced workflows for frontline programs.

Note: Dimagi technologies can also be managed on a local server.

Figure 1. Overview of a selection of mServices technologies

(Categorization of the above tools was based on public information available at the time of publication).

CLOUD PRODUCTS

A Cloud Product is software that is hosted by a software provider and made available through a public website. Cloud products allow users to do everything necessary through a public website to utilize the software. Common examples are Facebook or Dropbox. In mServices, the most common alternative to cloud products are customizable codebases. A customizable codebase requires a software developer to install, configure, and maintain each project. Other alternatives to a cloud product include a desktop product (e.g., Excel) or a Server-installed Product (e.g., Sharepoint).

COMPLEX WORKFLOWS

mServices technologies can be split into ones that support relatively simple workflows, such as mobile data collection (e.g., Open Data Kit) and simple SMS systems (e.g., FrontlineSMS), and ones that support more Complex workflows (e.g., CommCare, D-tree, eMocha). **Complex workflows have the ability to track people and other entities over time and can include complex branching logic and rules for parsing and responding to messages.** FLW activities and stock tracking require more Complex workflows (e.g., tracking clients or logistics over time with a mobile app). Organizations rarely, if ever, try to support FLWs or stock tracking with the technologies designed for simpler workflows.

OPEN SOURCE

Software is open source if it is made freely available and can be redistributed. Alternatives to open source code are proprietary software or codebases. Using open source code is especially beneficial if a project is going to scale, or if there is a need to transfer the technology to a government. It is important to note that utilizing open source code may require substantial resources in the initial phases of the project. Dimagi's open source code is available on Github.

Criteria	Value	Alternatives
Cloud Product	Essential for low-cost, continued operation, and scale. Enables 'do it yourself' projects without software development capacity	Desktop and Server Products
Complex Workflows	Enables tracking of entities over time and includes complex logic	Simple Tasks (e.g. basic data collection and simple SMS)
Open Source	Necessary for local ownership and national scale	Proprietary Software

Stages of mServices Projects

Most mServices projects go through distinct phases on a maturity spectrum. Even when starting in the Demonstration (Proof of Concept) stage, it is important for implementing organizations to look ahead to the later stages where cloud products and open source features will be critical. Dimagi's new maturity model helps our partners grow a program's stage of maturity from initial demonstration to implementation at scale.

STAGE 1: DEMONSTRATION (PROOF OF CONCEPT)

During the early stages of an mServices project, an organization is just starting to equip their FLWs. Cloud products allow any organization to do this without software development, and generally reduce costs. However many mServices organizations can help launch organizations at this stage (hence the proliferation of mHealth pilots).

STAGES 2 & 3: ITERATION AND VALUE CREATION

During these stages, an implementing organization will add users, adapt content, and take advantage of their deployed mServices system by adding more Complex features, such as improving FLW supervision. Cloud products offer substantial advantages, such as cost-effectiveness, to an implementing organization in the early stages of scaling. Cloud products are already designed to scale, and new users can be easily added. Local staff can make their own changes to the application using the tools provided by the cloud product. In contrast, a custom approach will be substantially more expensive during this phase since the entire cost must be incurred by a single organization, and knowledge transfer between software developers is costly and complex.

STAGES 4 & 5: SCALE-UP, SUSTAIN AND IMPROVE

During these stages, projects may reach national scale and are often taken over by governments or local programs. This is only possible if the technology is open source, allowing governments to hire local technical experts and software developers to maintain the code base in the long-term. Even in this case, the application building tools offered by cloud products reduce the time it takes staff to build and maintain apps because they can be used by non-software developers, reducing the money governments need to invest in hiring highly technical staff.

Demonstration (Proof of Concept)

Cloud Product Advantages
- Fast start-up
- Low cost
- Ability to do it yourself

Iteration and Value Creation

Open Source Advantages
- Avoids lock-in or commitment to one partner

Cloud Product Advantages
- Advanced features available
- Lower cost for scaling and iterations

Scale-Up, Sustain and Improve

Open Source Advantages
- Makes local ownership possible

Cloud Product Advantages
- Non-programmers can maintain applications
- Proven Technology