
Seed Handbook Documentation

Release 0.1.1

Praekelt Foundation

February 01, 2016

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The Seed Handbook is a blueprint for projects that enrich, transform and draw sustenance from their environments.

Contents:

Pioneer Projects

These are shorter projects aimed at learning and improving the Seed blueprint.

1.1 Criteria

- It's a learning opportunity
- to address a global problem,
- using open source technologies,
- which we co-design
- and maybe co-invest in,
- to build something new,
- within 6 months,
- with a tolerable amount of pain.

Town Planner Projects

These are longer projects aimed at transforming societies and contributing to building capable states.

2.1 Criteria

- Government endorsement,
- working in multi-stakeholder consortia
- using open source technologies,
- which we co-design
- and maybe co-invest in,
- which is integrated into national information systems,
- in order to expose data around service supply (feedback loops to improve service delivery)
- with the potential for a national footprint,
- within 1 year,
- with an explicit view to handover within a year of implementation

Engineering

The first Seed instance is Seed: Maternal Health. These are the components we are building for it:

Component	Lead	Team	Status
<i>Mission Control</i>	Milton	Dev	In progress
<i>Junebug</i>	Simon C	Dev	In progress
<i>Identity Store</i>	Mike	WCL	In progress
<i>Billing</i>	Simon C	Dev	•
<i>Helpdesk</i>	Mike	WCL	In progress
<i>Operational Dashboards</i>	Colin	SRE	•
<i>Jsbox Runner</i>	Simon C	Dev	•
<i>Stage-based Messaging Engine</i>	Mike	WCL	In progress

3.1 Mission Control

- **Lead:** Milton
- **Team:** Development Teams

Mission Control currently has a strong Unicore / Molo focus. That needs to be broadened to allow other applications to run and expose the needed operational information for those applications. Mission Control already has notion of organization level access controls.

A lot of UX, design & FED input is needed here to in order to maintain conceptual integrity between all of the components.

3.2 Junebug

- **Lead:** Simon Cross
- **Team:** Development Teams

Of all the components this is furthest along and most promising. What needs to be done here is that it needs to be able to accept Vumi messages via RabbitMQ (alongside the already existing HTTP API). The rough back of the napkin estimate for this is roughly a sprint and is needed for FamilyConnect Uganda.

3.3 Identity Store

- **Lead:** Mike Jones
- **Team:** Western Cape Labs

There is an implementation in Django for MAMA Nigeria. It needs to be extracted from that control interface into an independent thing. The new requirement here is that changes to fields on a contact should trigger events that other applications can register for (new registration, baby born, unsubscribe, opt-in / opt-out).

3.4 Billing

- **Lead:** Simon Cross
- **Team:** Development Teams

The implementation in Vumi is fairly standalone but will still need some attention, mostly around how accounts are managed. We also need to clearly define the purpose of billing within Seed and what non-message billing items might be needed by other Seed components.

3.5 Helpdesk

- **Lead:** Mike Jones
- **Team:** Western Cape Labs

Currently Western Cape Labs is earmarked for this development and will likely only be delivered by January / February. Since this is a Django application Milton will need to understand how it works in order to be able to host & integrate it with Mission Control.

3.6 Operational Dashboards

- **Lead:** Colin
- **Team:** SRE

This is the infrastructure behind Riemann. We need robust infrastructure so the various components can query for their relevant metrics in order to provide the needed operational visibility.

3.7 Jsbox Runner

- **Lead:** Simon Cross
- **Team:** Development Teams

This already exists but can do with some optimizations since we no longer will need to reload every application per request. We also need to integrate it with Junebug.

3.8 Stage-based Messaging Engine

- **Lead:** Mike Jones
- **Team:** Western Cape Labs

We have an implementation for MAMA Nigeria but it is likely we will need to go back to the drawing board for part of it. It works but we have doubts about its ability to scale to the size we need it to be.

Indices and tables

- `genindex`
- `modindex`
- `search`