

TECHNICAL OVERVIEW

PROJECT FLOGO

ABOUT THIS PRESENTATION

- ▶ Aimed at Developers & Technical Audience
- ▶ 2 objectives
 - ▶ Understand Flogo Technical Architecture
 - ▶ Learn how to develop activities & triggers

TECHNICAL GOALS

- ▶ Execute process flows
- ▶ Modern Language - Go
- ▶ Lightweight
- ▶ Simple
- ▶ Extensible
- ▶ Open source

Project Flogo

Ultra Lightweight IoT Apps & Integration



**GOLANG-BASED ENGINE
LIGHTER THAN JAVA**



**GROUND-BREAKING
CONVERSATIONAL FLOW UX**



**AUTO-STEPBACK
WEB DEBUGGING**

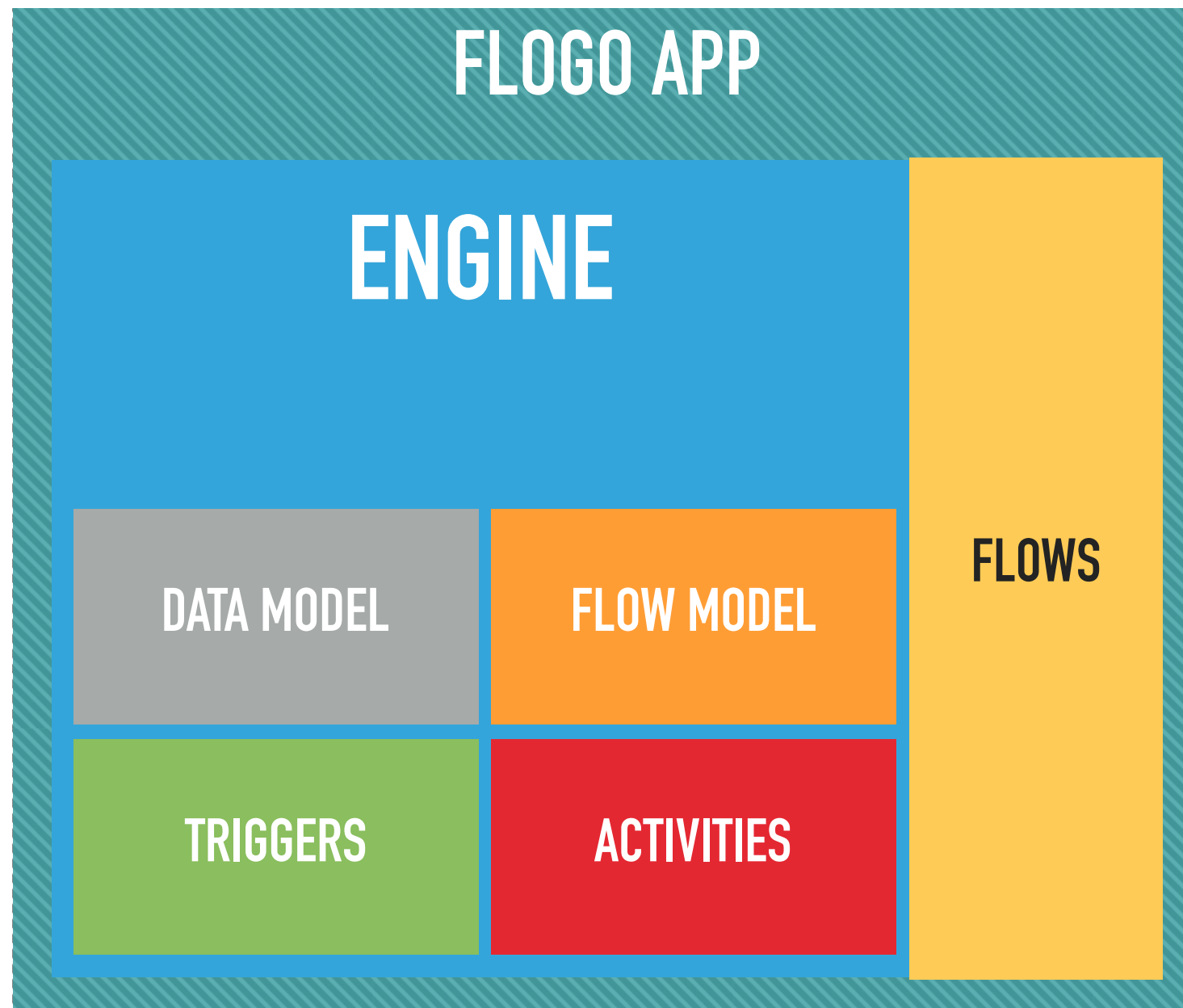


**TRUE OPEN SOURCE
BACKED BY TIBCO DNA**

POSSIBLE APPLICATIONS

- ▶ IOT devices and gateways
- ▶ Cloud Integration Engine
- ▶ Micro service

FLOGO APP



ENGINE

- ▶ Flow Execution
 - ▶ Pooled - pool of goroutine workers
 - ▶ Direct - goroutine per request
- ▶ Extensions
 - ▶ Model - determines how flow is executed
 - ▶ Activities - units of work in a flow
 - ▶ Triggers - kick off flows

DATA MODEL

- ▶ Support for Flow and Application level attributes
- ▶ Simple Types
 - ▶ STRING, INTEGER, NUMBER, BOOLEAN
- ▶ Complex Types
 - ▶ OBJECT - Similar to JSON Object - `Map[string]interface{}`
 - ▶ ARRAY - Similar to JSON Array - `[]interface{}`
 - ▶ PARAMS - Special type - `Map[string]string`

FLOW MODEL

- ▶ Extension Point
- ▶ Determines how/when Activities are executed in flow
- ▶ Manages control-flow
- ▶ Manages state changes
- ▶ Typically only one in an engine
- ▶ Only structured process models are supported
 - ▶ Examples: BPEL, BW5, InConcert, etc...

ACTIVITY

- ▶ Extension Point
- ▶ Unit of work in a Flow
- ▶ Typical Execution
 - ▶ Gets data from Flow
 - ▶ Does work
 - ▶ Outputs data to flow
- ▶ Examples: Log, REST Invocation

TRIGGER

- ▶ Extension Point
- ▶ Kicks off a flow
- ▶ Consists of Endpoints that map to Flows
- ▶ Typical execution
 - ▶ Receives an Event
 - ▶ Determines Endpoint
 - ▶ Starts flow associated with the Endpoint
- ▶ Examples: Timer, REST, MQTT

FLOW

- ▶ The process/flow definition
- ▶ Structure
 - ▶ Task - Houses Activities
 - ▶ Link - Connects Activities
 - ▶ DAG
- ▶ Associated with a Flow Model
- ▶ JSON