

# Cloudfandra on Brisk

Isidorey

[www.cloudfandra.com](http://www.cloudfandra.com)

# Isidorey

- M2M platform
  - Energy, Transportation, Healthcare, Industrial
  - Direct data feeds from devices
    - Adapt on the fly to device's protocol
    - Schema less access / no provisioning
- Global reach, reps in over 14 countries
- Not really the topic... more at the booth

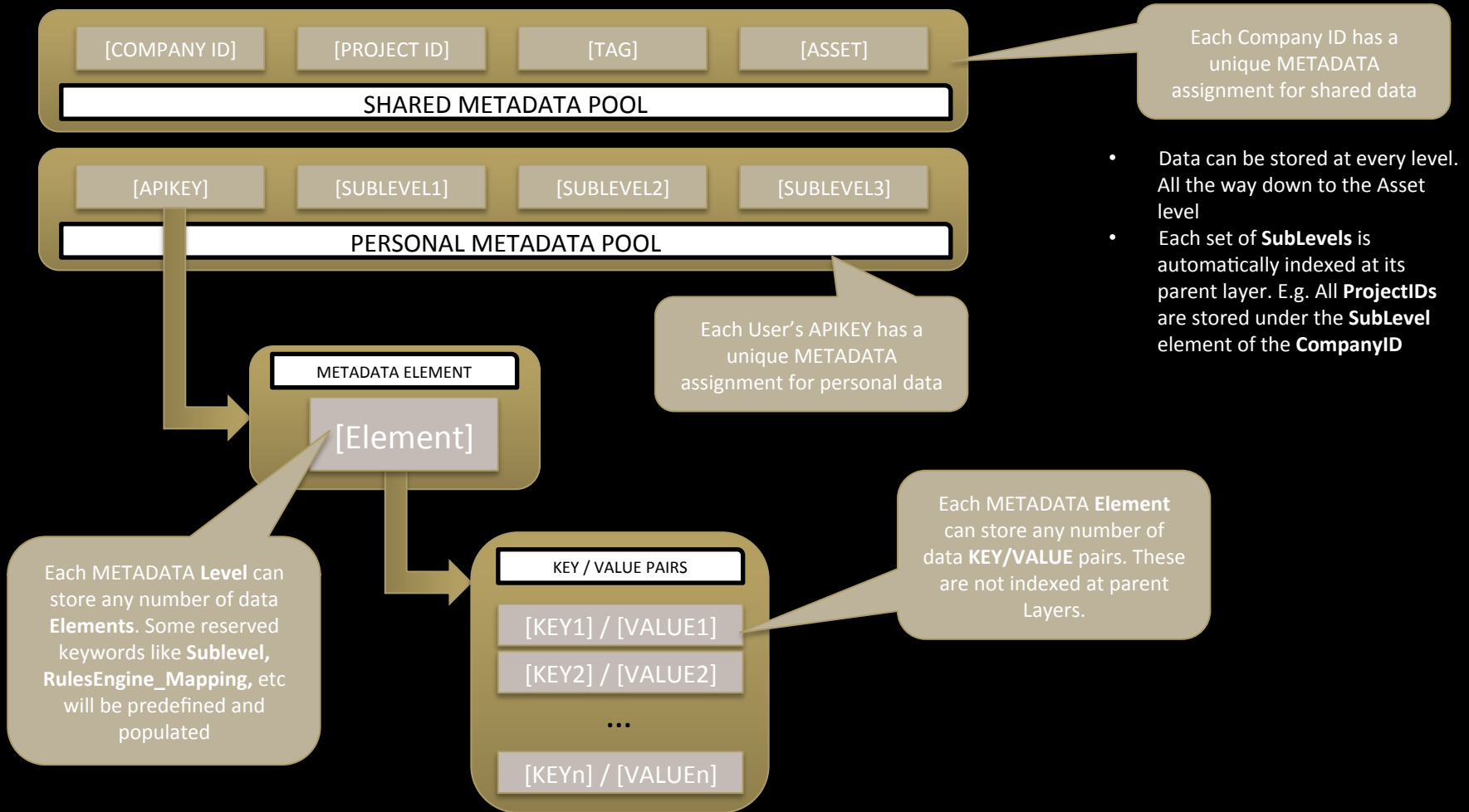
# Background on Cloudfandra

- Burned through BigTable, SimpleDB, Azure Table storage due to restrictions
- Needed a NoSQL
  - Mongo, Hbase, Cassandra
- Choose Cassandra
  - Faster write speeds
  - More resilient architecture
  - Constantly evolving with DataStax's efforts

# Customer Needs

- Stored machine data perfectly
- Metadata was much more difficult
- METADATA API
  - Predictable / hierarchical data patterns
  - Key/Value or straight JSON inserts
- Multi-tenant restrictions
  - Indexing
  - Map Reduce

# Metadata API



# Cloudsandra

- Multi-tenant REST API for Cassandra / Map Reduce
- Hosted on EC2
- Free for development \*
  - Single threaded queues for map reduce jobs
  - May introduce limits on map reduce job sets and column families
  - 5 Column family limit (arbitrary) with 5 indexes per CF

# Cloudspokes

- Network of over 10K developers
- Crowd sourced development for cloud platforms
- [www.cloudspokes.com](http://www.cloudspokes.com)
- Signup
- 2 Contests for Cloudsandra already (over \$1500 on the table)

# Features of the Multi-tenant Platform

- Hosted entirely on EC2
- Multi-tenant (you probably figured that already)
- Authenticated (HTTPS, Basic Auth)
- RF3 - Brisk Ring
- We take care of all management of the ring or use our Api AMI to connect to your ring
- No need to worry about updates, maintenance, repairs, compaction settings etc.
- Support Partnership with DataStax allows us to stay up with latest builds of Hector, Cassandra, and get bug-fixes quicker

# More technical features

- Features
- Multi-tenant Keyspaces
- Type inference for columns - UTF8Type by default
- Counter CFS don't count toward limit
- Bulk load up to 10mb JSON for POSTing
- No API request limitations
- CQL queries through REST - (select statements only)
- **Realtime Comet** for every data post (except bulk)
  - This one is really cool!
- REST helper libraries and Java sdk

# API Demo

- Apigee Console to try it out
- [www.cloudsandra.com](http://www.cloudsandra.com)

# Go your own way

- Multi-tenant not for you?
- Single-tenant AMI easily integrates with your current ring or a new Brisk ring with DataStax AMIs
- Search for “Cloudsandra” in AWS console
- Free and always up to date due to auto-loading AWS scripts

# Feature Roadmap

- CQL - (support more than select statements when out of infancy)
- ACL - Ability to add tokens (users) with same authorization which allows them to share column families
- ACL - Ability to authorize users to only certain call (only read, only post, only do this with a certain column family)
- CLOUD MAP/REDUCE – extended functionality
  - hive queries mapped to rest calls
  - On demand hiveservers for your jobsets (like amazon)

# Cassandra Logging Demo

- Built on Cloudsandra
- This demo exercises every API call with a useful purpose
- Source code will be posted to our github account

# Questions / Comments / Insults?

- Feature Requests
  - <http://isidorey.zendesk.com>
  - [support@isidorey.zendesk.com](mailto:support@isidorey.zendesk.com)
- Github
  - <http://github.com/isidorey>
- General
  - frank@, chris@, kyle@ -> isidorey.com