



Angus McLeod &lt;angus.p.mcleod@gmail.com&gt;

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**Re: Google innovations:**7 messages

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**Amol Sarva** <a@sarva.co>

Mon, Dec 9, 2013 at 5:37 PM

To: Martin Ceperley &lt;martin@knote.com&gt;, Angus McLeod &lt;angus@knote.com&gt;, Sarah Leahy &lt;sarah@knote.com&gt;

Cc: Lars Kluge &lt;l@knote.com&gt;, Long Liangyou &lt;forallandiy@gmail.com&gt;

Yes! Let's change this right away to s3

Sarah/angus - important card for Dev board ASAP

// Amol Sarva, Ph.D. // [a@sarva.co](mailto:a@sarva.co) // 530-727-8277 // [a.sarva.co](http://a.sarva.co) // @amol

On Dec 9, 2013, at 11:24 PM, Martin Ceperley <[martin@knote.com](mailto:martin@knote.com)> wrote:

Working on image uploading from iPhone app, I'm realizing we're storing file uploads (of several MB) straight in MongoDB. While this works, it could make the DB very large, and make backing up a big pain. I'd recommend moving this over to Amazon S3 or Google Cloud Storage.

On Dec 9, 2013, at 11:48 AM, Lars Kluge <[l@knote.com](mailto:l@knote.com)> wrote:

Also, currently Meteor only supports MongoDB--nothing else.

On Mon, Dec 9, 2013 at 11:46 AM, Martin Ceperley <[martin@knote.com](mailto:martin@knote.com)> wrote:

I've used some of them, we have project noah built on app engine with python. I did some analytics analysis with Big Query. In most cases the open-source alternatives we are using are just as good except on a very large scale where management becomes an issue.

Cloud Storage is a good S3 alternative for file storage and hosting. Where are we storing our uploaded images & files now?

Main downside is the proprietary lock-in and high cost at scale.

If we replaced Mongo with Cloud Datastore for example in the future, it would mean we don't have manage hosting a database (there are also hosted MongoDB services which Lars has looked into). Downside is relatively slow response time (maybe 100 to a few hundred MS) so you have to be efficient with queries.

On Dec 9, 2013, at 11:43 AM, Lars Kluge <[l@knote.com](mailto:l@knote.com)> wrote:

Not today. A little down the road when a MongoDB cluster and a bunch of application nodes are not able to handle our traffic anymore, then we need big data technologies. But the transition should be seamless, we need to figure out which pieces we need to extract from the main application and solve differently. For a typical startup this usually takes years. But just my two cents.

On Mon, Dec 9, 2013 at 11:24 AM, Amol Sarva <[a@sarva.co](mailto:a@sarva.co)>

wrote:

Guys, I am seeing a google guy talk about the below. Do they do anything we should use instead of our setup?

Google innovations:

GFS

Mapreduce - Hadoop

Big Table - nosql invented

Dremel - big data crunching engine

Spanner and f1 - the return of SQL

You can use them ---> cloud storage, cloud datastore, cloud compute engine

Eg Snapchat - scaled through Google and why it is 12 people

// Amol Sarva, Ph.D. // [a@sarva.co](mailto:a@sarva.co) // 530-727-8277 // [a.sarva.co](http://a.sarva.co)  
// @amol

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**Sarah Leahy** <sarah@knote.com>  
To: Amol Sarva <a@sarva.co>  
Cc: Angus McLeod <angus@knote.com>

Mon, Dec 9, 2013 at 5:53 PM

Done

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**Martin Ceperley** <martin@knote.com>  
To: Amol Sarva <a@sarva.co>  
Cc: Angus McLeod <angus@knote.com>, Sarah Leahy <sarah@knote.com>, Lars Kluge <l@knote.com>, Long Liangyou <forallandiy@gmail.com>

Mon, Dec 9, 2013 at 6:16 PM

Whoever is currently managing our Amazon account can add S3 and share the bucket name and private key with devs. We can add a DNS CNAME record to point a [knotable.com](http://knotable.com) subdomain to S3 like [files.knotable.com](http://files.knotable.com) .  
The dev tasks in order would be

- Setup S3 account and share details
- Setup S3 DNS CNAME records
- New image uploads go to S3 with unique filename- could go through Knotable server or directly to S3, directly is preferable so we don't use Knotable's RAM. Instructions here - <http://aws.amazon.com/articles/1434>
- S3 filename needs to be saved to Mongo
- Displaying images / downloading files need to change to the new S3 URLs
- Old files & images need migration code to migrate to S3 and delete them clearing space in MongoDB

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**Amol Sarva** <a@sarva.co>  
To: Martin Ceperley <martin@knote.com>  
Cc: Angus McLeod <angus@knote.com>, Sarah Leahy <sarah@knote.com>, Lars Kluge <l@knote.com>, Long Liangyou <forallandiy@gmail.com>

Mon, Dec 9, 2013 at 6:26 PM

Add the to Slaweeks to do list or Lars can help. Both have keys

// Amol Sarva, Ph.D. // [a@sarva.co](mailto:a@sarva.co) // 530-727-8277 // [a.sarva.co](http://a.sarva.co) // @amol

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**Angus McLeod** <[angus.p.mcleod@gmail.com](mailto:angus.p.mcleod@gmail.com)>

Mon, Dec 9, 2013 at 7:01 PM

To: Amol Sarva <[a@sarva.co](mailto:a@sarva.co)>

Cc: Martin Ceperley <[martin@knote.com](mailto:martin@knote.com)>, Sarah Leahy <[sarah@knote.com](mailto:sarah@knote.com)>, Lars Kluge <[l@knote.com](mailto:l@knote.com)>, Long Liangyou <[forallandiyoud@gmail.com](mailto:forallandiyoud@gmail.com)>

Sarah, I've moved it to the ops board. Lars'll be on it tomorrow, right Lars?.. :)

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**Lars Kluge** <[l@knote.com](mailto:l@knote.com)>

Mon, Dec 9, 2013 at 8:25 PM

To: Angus McLeod <[angus.p.mcleod@gmail.com](mailto:angus.p.mcleod@gmail.com)>

Cc: Amol Sarva <[a@sarva.co](mailto:a@sarva.co)>, Martin Ceperley <[martin@knote.com](mailto:martin@knote.com)>, Sarah Leahy <[sarah@knote.com](mailto:sarah@knote.com)>, Long Liangyou <[forallandiyoud@gmail.com](mailto:forallandiyoud@gmail.com)>

Angus, sweetheart, yes, I will take care about it tmrw :)

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**Sarah Leahy** <[sarah@knote.com](mailto:sarah@knote.com)>

Mon, Dec 9, 2013 at 8:27 PM

To: Lars Kluge <[l@knote.com](mailto:l@knote.com)>

Cc: Angus McLeod <[angus.p.mcleod@gmail.com](mailto:angus.p.mcleod@gmail.com)>, Amol Sarva <[a@sarva.co](mailto:a@sarva.co)>, Martin Ceperley <[martin@knote.com](mailto:martin@knote.com)>, Long Liangyou <[forallandiyoud@gmail.com](mailto:forallandiyoud@gmail.com)>

Great

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