

MICHIGAN STATE

UNIVERSITY

Alpha Presentation
Identity Based Communication and
Content Services
The Capstone Experience

Team MaxCogito

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Spring 2020



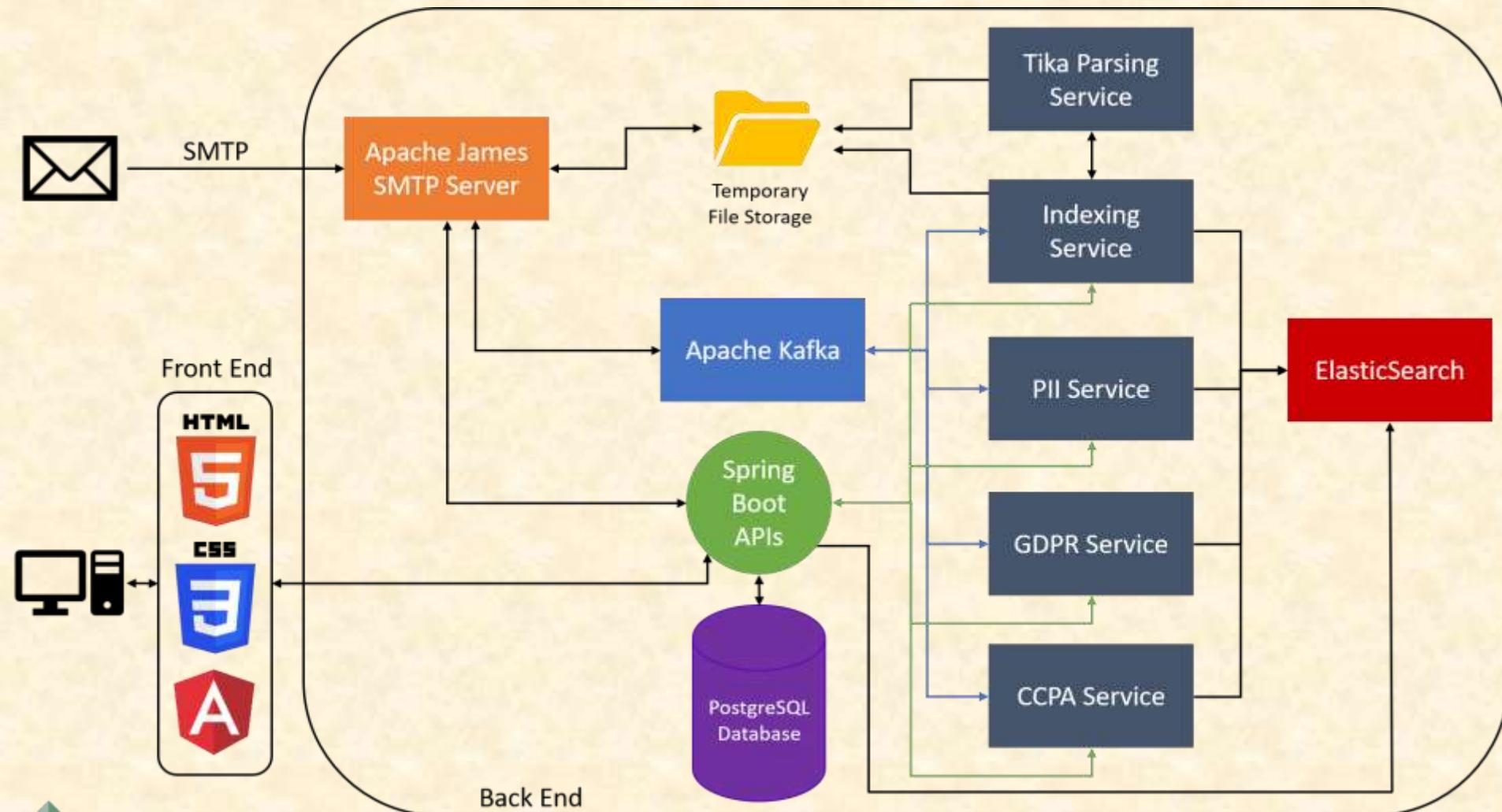
From Students...
...to Professionals

Project Overview

- Give companies insight into the messages passing through their servers.
- Analyze and process emails
 - Allow companies to create custom policies
 - Tag messages that do not comply with firm policies
 - Highlight data that does not comply
- Maintain compliance with regulations
 - Privacy: GDPR, CCPA
 - Financial: SEC, ESMA



System Architecture



Compliance Officer Dashboard

Welcome Steve (Compliance Officer) [LOGOUT](#) ★

Main

System

Firm

Policies

MaxCogito

Start Date

End Date

E-mail	Title	FEBRUARY 2020						
E-mail	Title	Su	Mo	Tu	We	Th	Fr	Sa
akak89@mcg.com	Details about Issue #161	26	27	28	29	30	31	1
ai1337@bigdata.org	please review	2	3	4	5	6	7	8
helloworld@demo.com	IMPORTANT PLEASE READ	9	10	11	12	13	14	15
stevea@maxcogito.com	To all employees	16	17	18	19	20	21	22
harrison111@yahoo.com	re: Personal Identification	23	24	25	26	27	28	29
jack@msu.edu	re: Tuesday's meeting	CCPA						



User Management Dashboard

Welcome Steve (Compliance Officer) [LOGOUT](#) ★

Main

System

Firm

Policies

MaxCogito User Control

Actions	Name	ID#	User Name	Date Added	E-mail
Add New	<input type="text" value="Name"/>	<input type="text" value="ID#"/>	<input type="text" value="User Name"/>	<input type="text" value="Date Added"/>	<input type="text" value="E-mail"/>
Edit Delete	Bryan Hitchcock	1	bryan.hitchcock	12/2/2019	bryan_h@maxcogito.com
Edit Delete	Andrew Kim	2	andrew.kim	12/3/2019	andrew_k@maxcogito.com
Edit Delete	Harrison Samoy	3	harison.samoy	12/15/2019	harrison_s@maxcogito.com
Edit Delete	Connor Sands	4	connor.sands	12/17/2019	conor_s@maxcogito.com
Edit Delete	Tengjiao Wang	5	tengjiao.wang	12/21/2019	tengjiao_w@maxcogito.com



Regex Consumer Example

```
*** EMAIL *****
```

Dear Mr. Dykson,

This is a test for our Alpha presentation. Please let us know if you have any questions by calling us at 555-555-5555 .

Also feel free to use our credit card: 340000000000009

- Team Maxcogito

```
*****
```

Searching for...

[AMEX CC](s)

[340000000000009]

[PHONE NUMBER](s)

[555-555-5555]



AWS Elasticsearch Index Success

```
1 {
2   "_index": "alpha",
3   "_type": "_doc",
4   "_id":
5     "493269ec3b143ec768535b15906edf9bb4939c47ec3762996ef546acb4083
6     87b",
7   "_version": 1,
8   "_seq_no": 2,
9   "_primary_term": 1,
10  "found": true,
11  "_source": {
12    "sender": "steve@maxcogito.com",
13    "toAddr": "james@maxcogito.com",
14    "subject": "Alpha Presentations",
15    "toList": "james@maxcogito.com",
16    "ccList": "NULL",
17    "bccList": "NULL",
18    "attachFiles": "NULL",
19    "sentDate": "Tue Feb 18 04:22:32 UTC 2020",
20    "htmlContent": "NULL",
21    "textContent": "Hi James,\r\n\r\nSee attached for the
22    alpha presentation.\r\n\r\nThanks,\r\n\r\nSteve\r\n\r\n",
23    "gdpr": "NULL",
24    "pii": "NULL",
25    "ccpa": "NULL"
26  }
27 }
```



What's left to do?

- Apache Tika integration
- Set up Apache James as SMTP relay
- Make Apache Kafka more robust
- Write additional Apache Kafka consumers
- Secure API endpoints
- Front end



Questions?

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