

Self-sustaining data markets in Europe

Barriers – Requirements – Solutions

Technological perspective



HELLO!

I am Christof Weigandt

Ascora GmbH

- Technological partner of EuDEco



Trinity of technological aspects



Barriers - What's the problem?



Requirements - What do we need?



Solutions - How to achieve it?



ATTACK ORIGINS		ATTACK TYPES		ATTACK TARGETS		LIVE ATTACKS							
#	COUNTRY	#	PORT	SERVICE TYPE	#	COUNTRY	TIMESTAMP	ATTACKER	ATTACKER IP	ATTACKER GEO	TARGET GEO	ATTACK TYPE	PORT
553	United States	437	25	smtp	776	United States	13:01:08.300	American National Insurance Co	50.200.102.48	League City, US	De Kalb Junctio...	https	443
382	China	210	23	telnet	279	United Arab Emirates	13:01:07.858	Dslam Infrastructure South	182.180.160.97	Lahore, PK	Aix-En-Provenc...	netis-router	53413
32	Ukraine	185	8080	http-alt	63	Spain	13:01:07.827	Chinanet Jiangsu Province Network	117.90.22.240	Zhenjiang, CN	Lynnwood, US	xsan-filessystem	50856
31	Netherlands	58	3389	ms-wbt-server	26	Singapore	13:01:07.308	Tt Adsl-Static_Gay	88.247.151.117	Istanbul, TR	Lynnwood, US	telnet	23
24	South Korea	40	5900	rfb	26	Italy	13:01-07.008	The National Computer Systems	89.144.99.116	Riyadh, SA	Riyadh, SA	db-lsp-disc	17500
21	Colombia	35	445	microsoft-ds	17	Philippines	13:01:06.840	Chinanet Hubei Province Network	116.211.0.90	Wuhan, CN	Dubai, AE	unknown	8123
20	Switzerland	30	50864	xsan-filessystem	19	France	13:01:06.282	Carinet Inc.	71.6.158.166	San Diego, US	San Francisco, ...	coap	5683
17	Turkey	28	53413	netis-router	12	Norway	13:01:06.024	Microsoft Corporation	157.56.111.250	Redmond, US	De Kalb Junctio...	smtp	25
13	Vietnam	25	3306	mysql	10	Saudi Arabia	13:01:05.774	Microsoft Corporation	207.46.100.250	Redmond, US	De Kalb Junctio...	smtp	25

2

Data interfaces



Fear of long term maintenance obligation (data holder)
and instability (data user)



Stable interfaces



Backwards-compatible design
Develop a meta standard definition for interfaces

3

Migration to cloud systems



Complex and unclear task how to setup
microservices



Standardization and Recommendations



Acquire external IT-expert Knowhow

application

Componentized
application

Microservices
application

4

Data timeliness



Outdated data can lead to wrong conclusions



Data quality approach



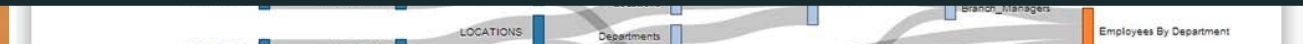
Provide meta-data around the data payload
Use standard data formats

5

Data lineage



Data lineage concerns -> „lost source“-problems



Data quality approach



Provide meta-data around the data payload
Track path and changes of data

6

Third party dependencies



source: Capagermini

el

7

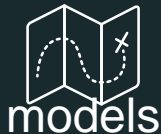
Data distribution



Choosing the correct method for data distribution



Failsafe, scalable and distributed systems



Make use of appropriate cloud services
Web-APIs support pay-per-usage business



Unstable environments



Risk of severe technology adaption expenditures



knowledge

Cloud services provide outsourced expert



costs

Initiate a task force for monitoring ICT
Select XaaS solutions to reduce initial investment

9

Diversity of standards



Different standards among sectors and nations



Meta standard for EU-wide data exchange



Use de-facto standards wherever possible
Use machine-translation as a temporary fix

THANKS!

We are looking forward to discuss details with you in the upcoming round table discussion



Overcoming barriers faced in the data economy

Questions and answers

Are there additional technological barriers?

Do you comply with the requirements?

Can you think of different solutions?