



TCS Crystal Ball

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My Data My Control

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Business Context

Crystal Ball Demo

Pole Position

Discussion

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Security vis-à-vis Privacy

SECURITY



User and attacker are different

Security

Protecting data from unauthorized users
Encryption a strong lever
Utility of data stays intact
Mature area, best practices, certifications

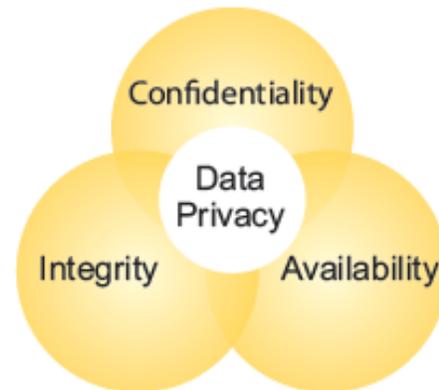
PRIVACY



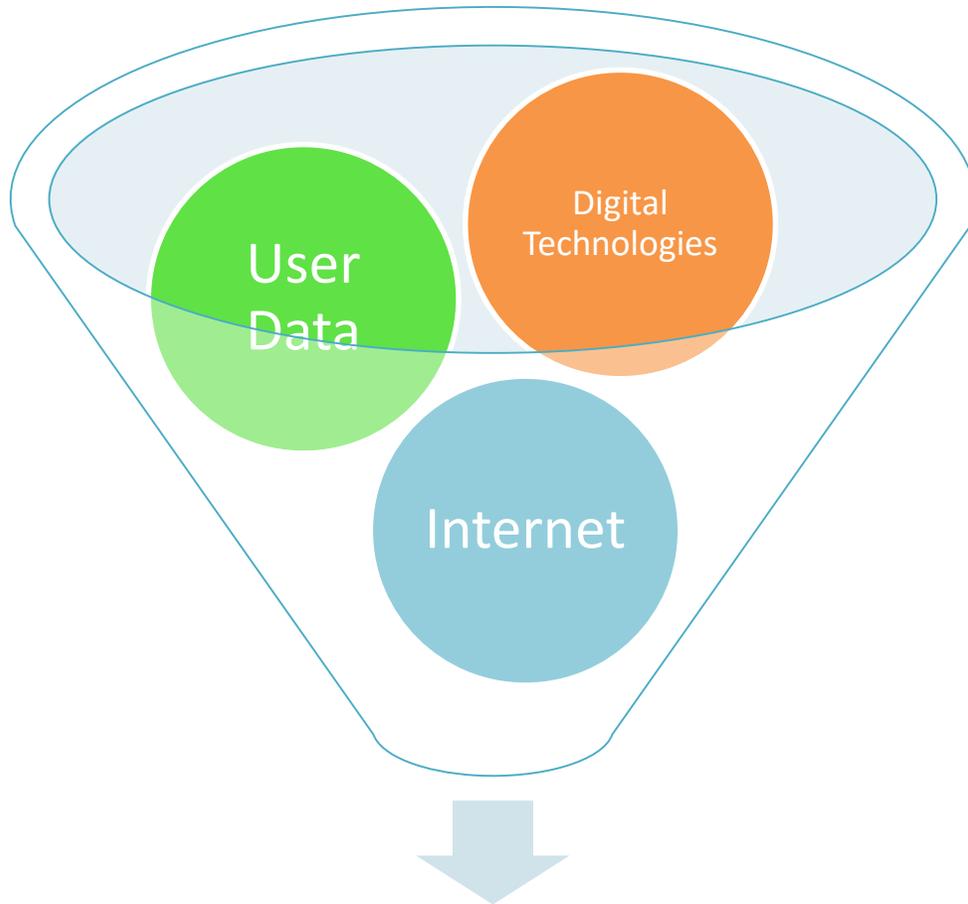
User is the attacker

Privacy

Protecting identities from authorized users
Encryption mostly not useful
Privacy versus utility trade-off
Emerging area with many opportunities



Data The New Oil



Services and Products



- 6.4 Billion connected things in 2016
- 95 Apps on a average users mobile

- blogs.datadirect.com
- www3.weforum.org
- www.orange.com
- www.hbr.org
- www.gartner.com
- Aviate & Yahoo Labs 2014

Present *Tense*

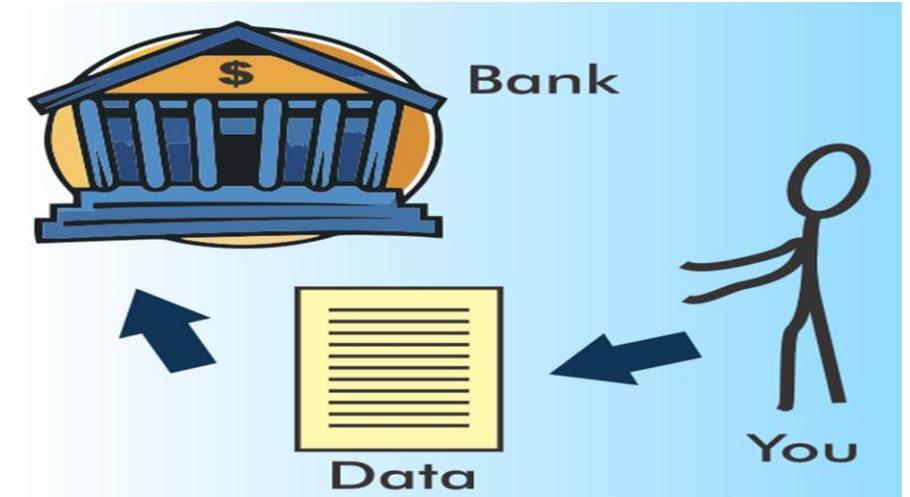
We provide personal data on a daily basis,

Whether joining a gym, opening a bank account or book a flight online, or applying for loyalty cards in shops and department stores. you hand over vital personal information such as your name, address, credit card number etc.

And then, do you have control over your data ?

Do you know

- What data of yours is being used ?
- By whom ?
- For what purpose ?
- From where ?



General Data Protection Regulation (GDPR)

http://ec.europa.eu/justice/data-protection/reform/index_en.htm



Consumer Privacy Bill of Rights (CPBR)

<http://www.whitehouse.gov/sites/default/files/privacy-final.pdf>

“As a good privacy practice, customers have right to know what happens to their data; after all it’s their own data!”

Present *Tense* in numbers

Reports and Industry Agendas say...(2014 and 2015)

What we can infer...

78%

• Consumers do not trust organizations when it comes to use of personal data [1]

People do not trust organizations

67%

• Organizations ask for too much personal information, and business operations are not transparent [2]

Transparency needs to be improved to build trust

80%

• Consumers know that their personal data has value to businesses [3]

Huge value of data

90%

• Consumers want control over their data possessed by organizations [4][8]

People want control over their data

78%-95%

• Young people concern about privacy of their personal data [5]

Future demands control in customers' hands

GDPR & CPBR

• Focus is on Individual empowerment [6] [8]

Operationalizing privacy related laws and regulations

[1] <http://www.orange.com/en/content/download/21358/412063/version/5/file/Orange+Future+of+Digital+Trust+Report.pdf>

[2] http://www3.weforum.org/docs/WEF_RethinkingPersonalData_ANewLens_Report_2014.pdf

[3] <http://www.orange.com/content/download/25973/582245/version/2/file/Report+-+My+Data+Value+-+Orange+Future+of+Digital+Trust+-+FINAL.pdf>

[4] <http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-Retail-Personalization-Survey-Infographic-March-2015.pdf>

[5] <http://www.oxfordmartin.ox.ac.uk/news/201405-privacy-paradox-report>

[6] https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_big_data_and_privacy_-_may_2014.pdf

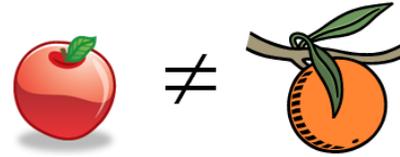
[7] http://ec.europa.eu/justice/data-protection/index_en.htm

[8] <https://hbr.org/2015/05/customer-data-designing-for-transparency-and-trust>

Pain Area



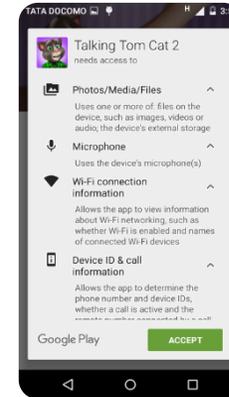
- Read privacy policy



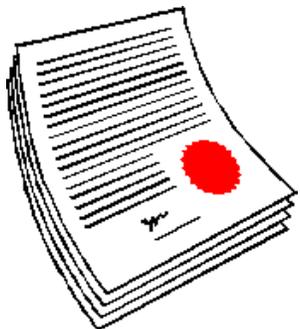
- Cannot compare



- Pay with time



- Forced to 'accept'



- No uniform model



- cannot configure

So what needs to happen ?

Improve Trust !!

Transparency

Control

To the Data Subject

Value

Back to the Data Subject

Accountability

Hence we decided to create a platform which acts as an OBSERVER and ENFORCER between the services of the organization accessing customers' data and the customer.



My Data My Control

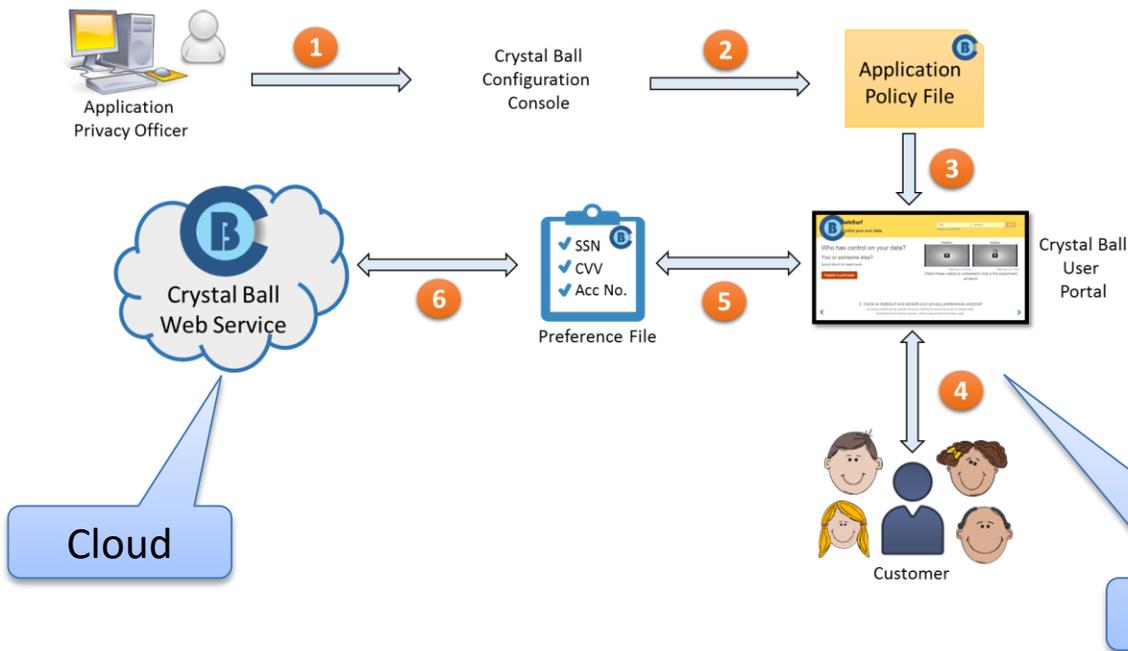
Platform that acts as an OBSERVER and ENFORCER between the services of the bank accessing customers data and the customer

What is Crystal Ball

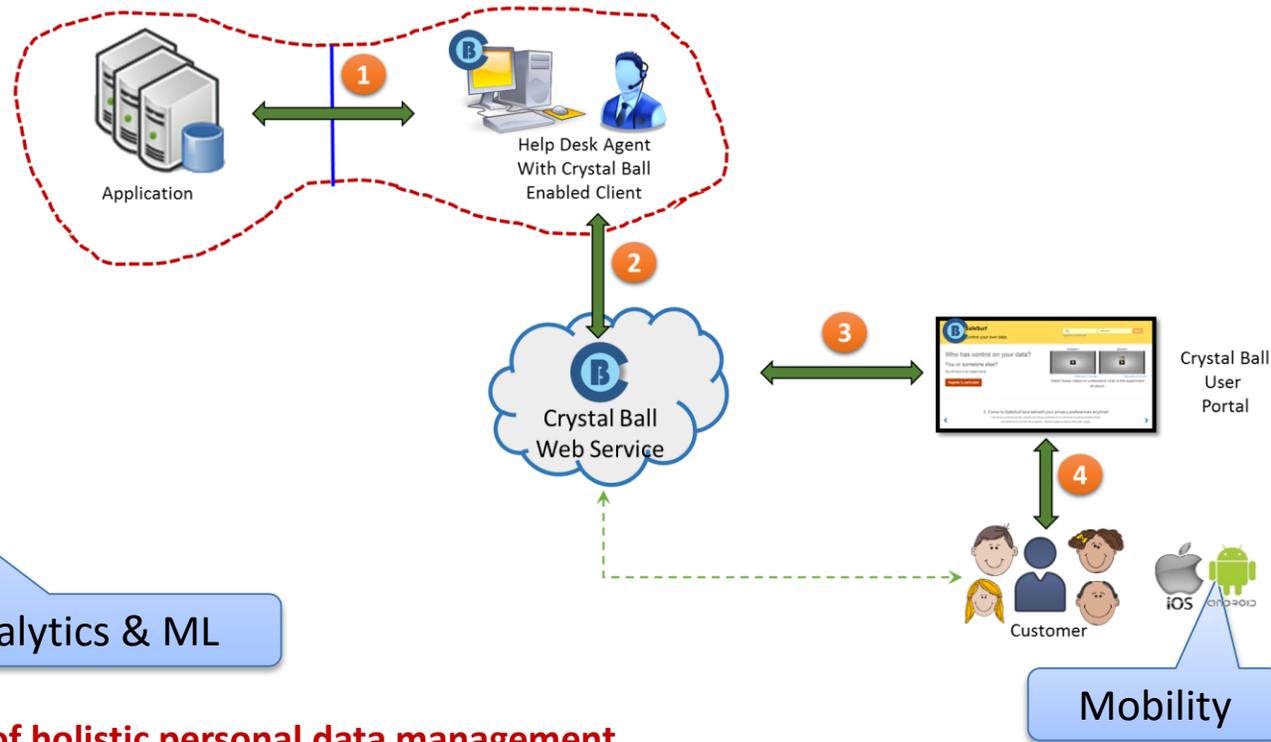


A platform that facilitates both the capture of consumer's privacy intent and its live enactment within an enterprise. Crystal Ball framework acts as an OBSERVER and ENFORCER between the services of the organization accessing customers' data and the customer.

Registration Flow (Intent Capture)



Operation Flow (Enactment)

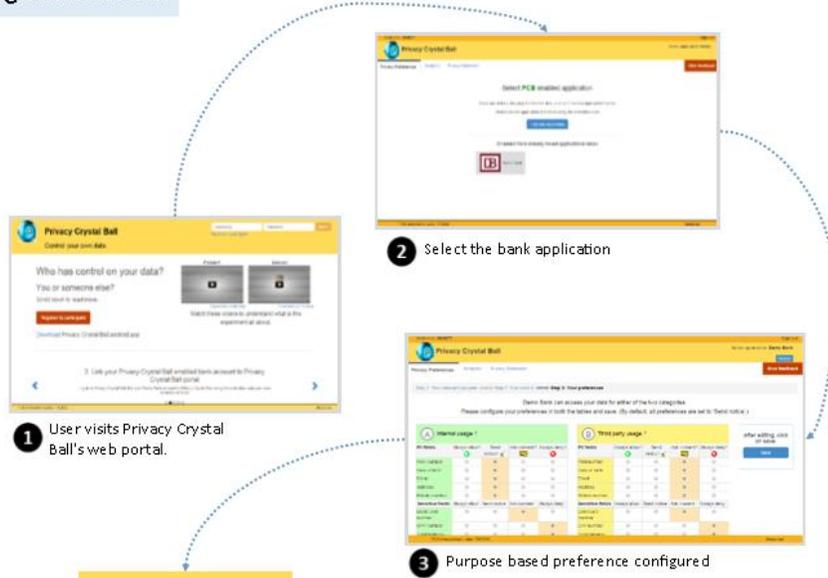


Agile, flexible, minimally intrusive enablement of holistic personal data management

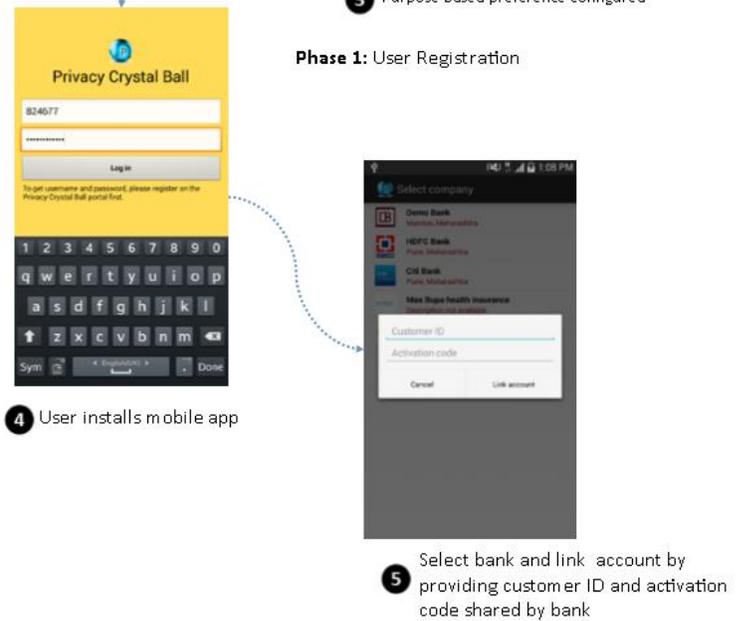
*TCS Patent pending

TCS Crystal Ball in Action – An example

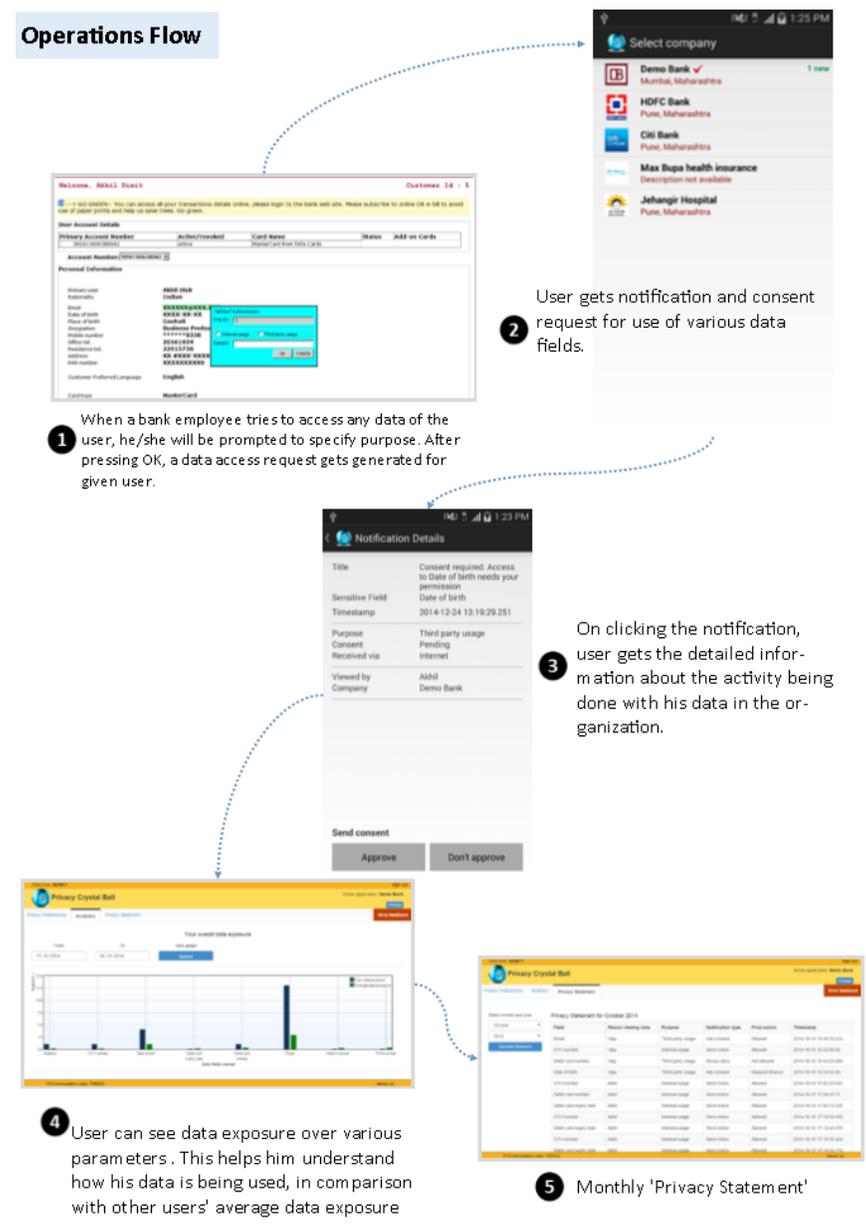
Registration Flow



Phase 1: User Registration



Operations Flow



Crystal Ball - Features



1 Fully Configurable Control to the Data Subject



2 Simplified, Unambiguous & Real-Time Consent Mechanism



3 Safeguarding Personal Information



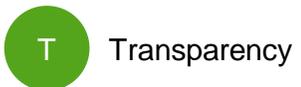
4 Audit & Tracking of Data Flow, Usage & Processing



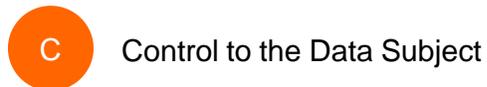
5 Privacy Statement with Value Added Features



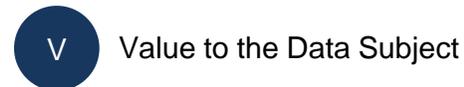
6 Compare across Data Controllers vis-à-vis Personal Data Collected



Transparency



Control to the Data Subject



Value to the Data Subject



Accountability

Crystal Ball Ring



Crystal Ball Benefit - Transparency, Differentiator and Profitability

C

- Instead of passive, **active control** and engagement

A

- **Clear accountability** across all stake-holders

T

- **Real time transparency** with context and purpose

P

- **Policy externalization** leading to compliance enactment always

V

- **Value exchange** as better understanding of data utility



Clear Differentiator

No such type of solution in the market as of now

69 %

At No Cost

People are willing to pay for being able to control

Source: TRDDC Survey in September 2014



With Reduction in Risk Capital

Data movement and enterprise user monitor

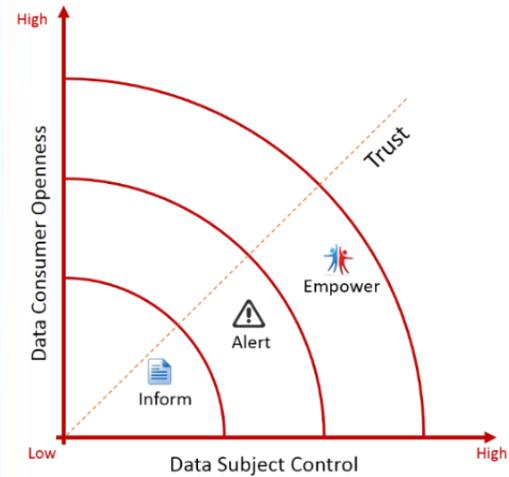


And New Revenue Streams

As a Data Meter, market place enabler for banks

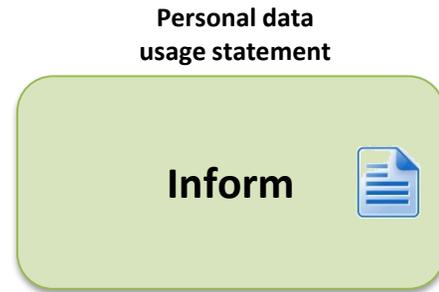
Transparency in operation will create differentiator and build profitability in the long run

Deployment Roadmap & options



Static

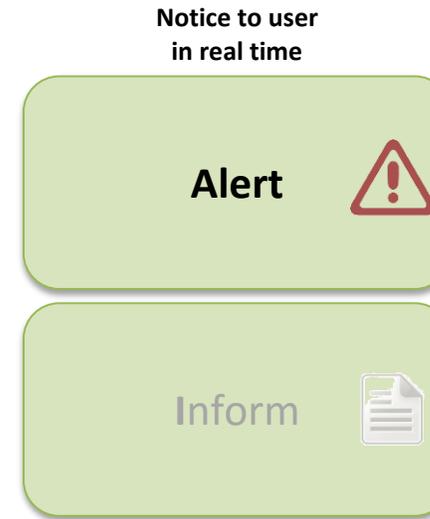
- Periodic end user updates as Report/Statement



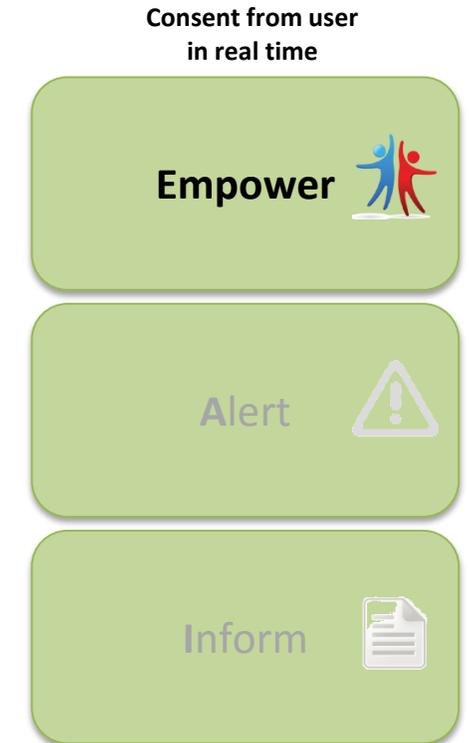
Phase - 1

Dynamic

- Real time user updates



Phase - 2

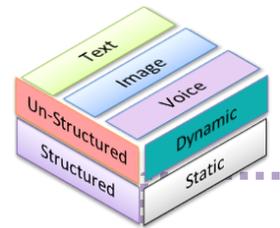


Phase - 3

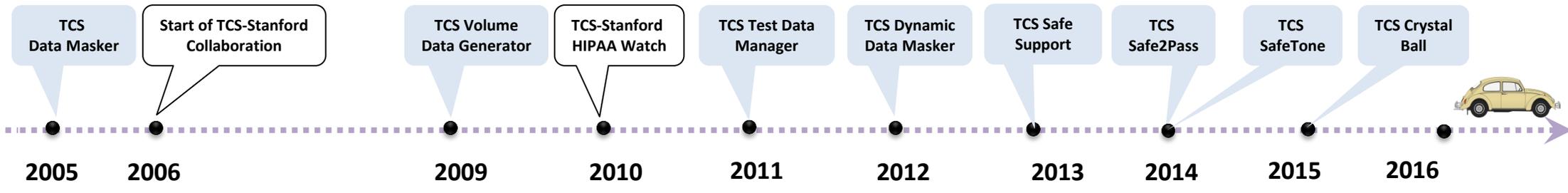
TCS Privacy Enabling Technologies

Papers 35+ Patents 40+ Awards 10

Journey So Far



Use-inspired research



PET Name	Brief Description	Use-case
Data Masker	Static data masking product for structured data	Creation of secure test-beds at off-shore
Volume Data Generator	Privacy preserving data generation, any volume, any time, any where	Performance testing, load testing, capacity planning, data migration
HIPAA Watch	Automated HIPAA compliance monitoring	An aid to enforce HIPAA compliance in healthcare systems
Test Data Manager	Standardize process to create and manage test data effectively	Efficient management of test data lifecycle, optimize, audit and better compliance
Dynamic Data Masker	Helper for real-time data masking solution creation	Privacy enhancer for customer help-desk
Safe Support	Privacy Enabled Production Support	Production Support of Sensitive Databases and Servers.
Safe2Pass	Enterprise Credential Ownership & Management	Enforcing access to external third party resources belonging to the enterprise
Safe Tone	Static & Dynamic DTMF Tone Masking	Tone Masking for Telephone/Mobile Payment Gateways
Crystal Ball	Giving back control of user data to the owner	Providing data control to the user, to increase trust, transparency and accountability



Thank You for the opportunity !

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Crystal Ball
Winner of TCS BFS Future of Bank
Competition - Retail Banking Theme
2015