DKYC

BLOCKCHAIN-BASED DECENTRALIZED KYC (KNOW-YOUR-CUSTOMER)

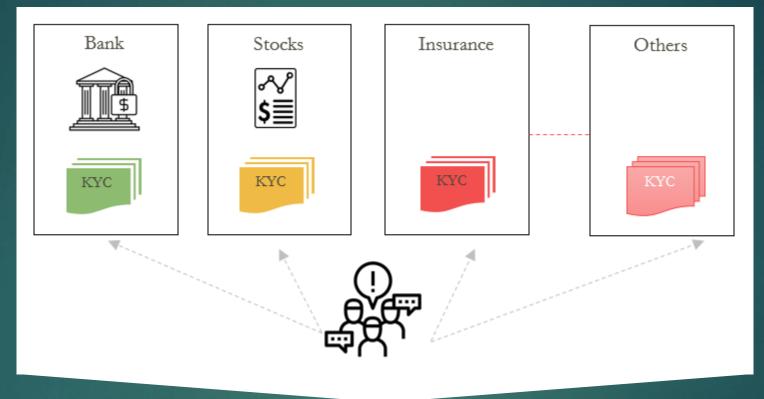
Syed Azhar Hussain and Zeeshan-ul-Hassan Usmani University of Nicosia

The Fourteenth International Conference on Systems and Networks Communications ICSNC 2019

KYC Forms

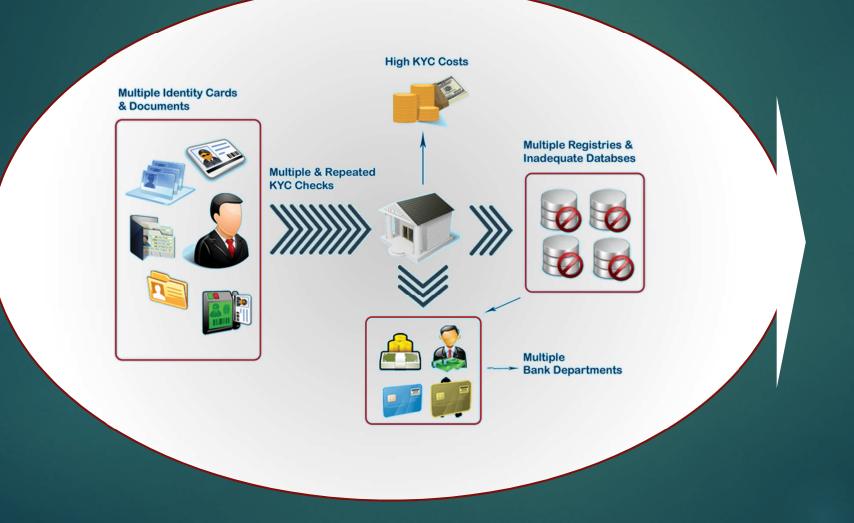
		4. Contact Details (Al communications will be sent on provided Mobile no. / Email-ID) (Please refer instruction F at the end)	Please refer instruction F at the end)
Know Your Client (KYC) Application Form (For Individuals only)	Application Form (For Individuals only) Application New	EnaliD	
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Fields marked with " are mandatory fields KYC Type" [Normal (two a numberoy)] PAN Exem	Partice manual with "" are manufactory finas KYC Type" Normal (#ANI in manufactory) PAN Exempt Investors (Refer manufactories #)	5. FATCA/CRS Information (Tick if Applicable) Residence for Tax Purposes in Jurisdiction(s) Outside India (Please refer instruction B at the end)	es in Juradiction(s) Outside India (Please refer instruction B at the end)
1. Identity Details (Please refer instruction A at the end)	1. Identity Details (Pixase refer instruction A at the end)	Additional Details Required' (Mandatory only if above option (5) is ticked)	
PAN PAN Press enclose a duly attested copy of your PAN Card	PAN Pease enclose a duy advected copy of your PAN Card	Country of Jurisdiction of Residence* Country Code of Jurisdiction of Residence as per 180 2188	ntry Code of Jurisdiction of Residence as per IBO 2188
Prefix First Name Middle Name	Prefix First Name Middle Name Last Name	Tax Identification Number or equivalent (If issued by jurisdiction)*	
Name" (cane as 10 proch		Place / City of Birth* Country of Birth* Country of Birth* Country Code ++ Jer 180 2188	Country Code et per ISO 3168
Maiden Name (r avyr)	Maiden Name (r avg)	Address Line 1*	
Father / Spouse Name*	Father / Spouse Name*	Line 2	
Mother Name*	Mother Name*	Line 3 City / Town / Village*	City / Town / Vilage*
Date of Birth* [D[D] - [M[M]-[Y] Y] Y]	Date of Birth* [D[D] [M[M]]-[Y] Y [Y] Y]	District* Zip / Post Code* State/UT Code er per todian Money Vehicle Aut, 1886	State/UT Code an per todian Motor Vettole Act, 1866
Gender* M. Male F- Female T-Transpend	Gender* M. Male P-Female T-Transgender	State/UT* Country Code experiatio 3188	Country Code as per 180 3188
Marital Status* Married Umarried Others		6. Details of Related Person (Optional) (please refer instruction G at the end) (in case of additional related persons, please fill American B1)	of additional related persons, please fill 'Amesure B1')
		Related Person Deletion of Related Person KYC Number of Related Person (if available')	(ated Person (if available')
Citzenship* IN-Indan Others - Country		Related Person Type* Okuardian of Mnor Assignee Authorized Representative	Authorized Representative
Residential Status* Resident Individual Foreign National	Residential Status* Resident Individual Non Resident Indian Foreign National Person of Indian Origin	None'	
Conspation Type" SService Proate Sector Public Sector Government :	Cocupation Type" SService Physic Sector Rule Sector	(IF KYC number and name are provided, below details of section 6 are optional)	are spinner)
O-Others Professional Self Employed Retred	C-Others Professional Self Employed Refined Housewife Student	Proof of Identity (Pol) of Related Person' (Please see Instruction (H) at the end) (Centified case of <u>any uses</u> of the Instrum Proof of identity(Pol) needs to be submitted)	
B-Business D X-Not Categorised	BBusiness X-Not Categorised	A-Passport Number Passport Expry Date	Passport Expiry Date
2. Proof of Identity (Pol)* (for PAN exempt Investor or if PAN card copy not provided) (Please refer instruction	2. Proof of Identity (Pol)* (for PAN exempt Investor or # PAN card copy not provided) (Please refer instruction C-& K at the end)	E-Voter ID Card	
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D- Driving Licence Driving Licence	D-Driving Licence Driving Licence Expiry Date	E-Aschaar Card	
E- Aadhaar Card	E-Aadhaar Card	F- NREGA Job Card	
F- NREGA Job Card	F- NREGA Job Card	Z- Others (any document notified by the central government) Identification Number	Identification Number
Z- Others (any document notified by the central government) Identific	2- Others (any document notified by the central government) Identification Number	7. Remarks (if any)	
3. Proof of Address (PoA)*	3. Proof of Address (PoA)*		
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(Certified copy of any one of the following Proof of Address (PoA) needs to be submitted)	(Certified copy of any one of the following Proof of Address (PoA) needs to be submitted)	KYO Verification Centred Out by (Refer Induction () Bedfallow Details Date Date Name	
Proof of Address*	Proof of Address*	Erro Name Code	
Passport Number Passport Exp	Passport Expiry Date	Emp. Code	Branch
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Cothers (any document notified by the central government)	Others (any document notified by the central government)		
3.2 Correspondence / Local Address Details* (Please see instruction E at the end)	3.2 Correspondence / Local Address Details" (Please see instruction E at the end)	In-Person Vertilation (IPV) Carried Out by (Refer Instructor J Institution Details Date Name	Institution Delate
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		Emp. Code Emp. Branch	Branch
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District" Zip / Post Code" StrawUT	Line 3 City / Town / Village*		
		(Second Spreed)	
State UT1 Country	State/UT* Country Code as per 10.3 test		
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What is KYC?

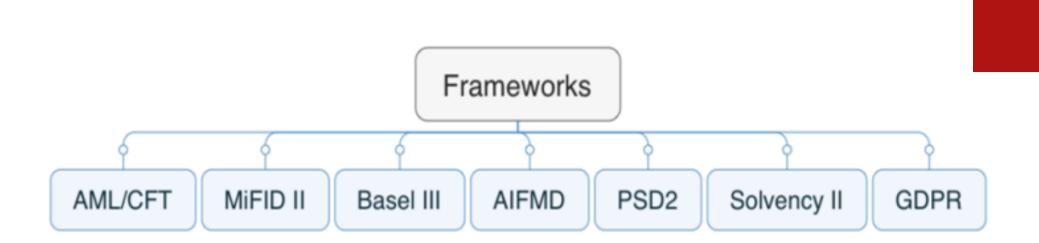


Know Your Customer (aka KYC) is the regulatory and compliance obligation on the conventional banking and financial system, to capture the customer information before onboarding and providing any financial services to the customer. In banks, KYC is embedded into the account opening forms, which mandate customer to provide accurate information and ideally update as soon as any change occurs in KYC data.

The problem



High cost
Unbanked
Verification Time
KYC Segmentations
Audit errors
Not updated
Silos
CFT & AML
Regulation

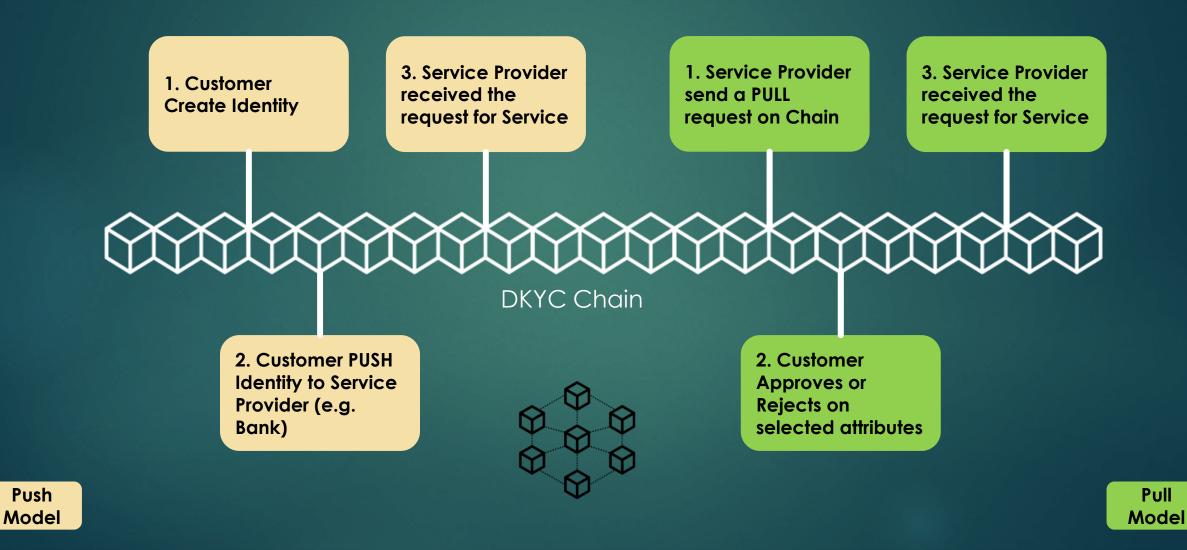


Regulatory Frameworks

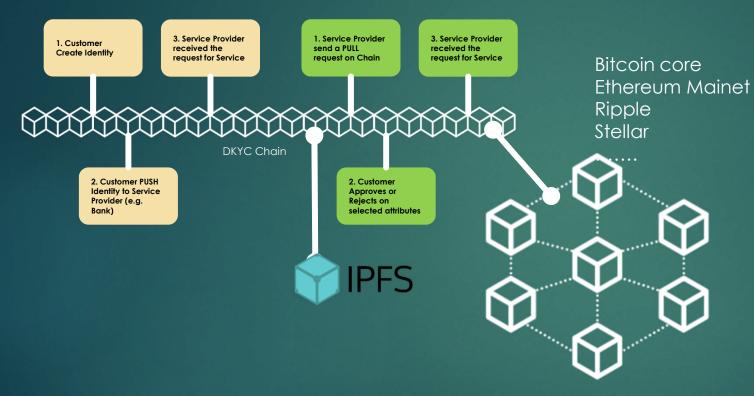
Company	Description	
Company	Argos provides KYC form submission and screening for errors and	
Argos Solution	fraud cases. It also provides checkups on the customer lists with our AML global watch lists and targeted profile investigation and risk leveling. AML report publishing and Whitelist finalization. HQ in South Korea.	
KYC-Chain	A B2B managed workflow application that enables organizations to manage their KYC processes for individuals and corporates. It provides a solution to streamline the onboarding process for the customer. Review and process incoming KYC applications by streamlining workflow and automating the screening and verification process. HQ in Hong Kong.	
Tradle	KYC on blockchain provider. Aims to build a global trust provisioning network to give retail, wealth, SME and institutional customers of financial institutions access to capital and risk allocation. Uses pre- integrated vendor products such as biometrics, ID scanning, sanctions, and PEPs checkers. HQ in New York.	
KYC Legal [Provides blockchain KYC document verification through a mobile application, and verification of identity and documents with a KYC LEGAL agent. After verification into the blockchain, the user can use the stored data to verify identification for multi-purposes. The application is available for iOS and Android mobile devices. Provides B2B and B2C services. Offices in Berlin, San Francisco, and Moscow.	
Confirm	The company's platform uses algorithms and big data analysis to provide data on blockchain transactions and parties. It provides an AML Platform that offers anti-money laundering (AML) products for companies and financial institutions operating in the cryptocurrency ecosystem. Provides an end-to-end know your customer solution covering entities' activity in the crypto ecosystem. HQ in London, UK.	

Current KYC Implementations

DKYC – A Decentralize approach



DKYC – Platform & Consensus



Scoring sensitivity would be selected by the Service Provider (e.g. banks, stocks etc.) depending on the Service to Offer. For example, bank open account with score 50 and lend when the score is greater than 150.

Push

Model

Proof of Importance

• Scoring Levels for Individuals

Witness	50
Finger Print	100
National Identity	200

- National Identity 200
- Passport 300
- Deed 400

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• Scoring Levels for Corporates

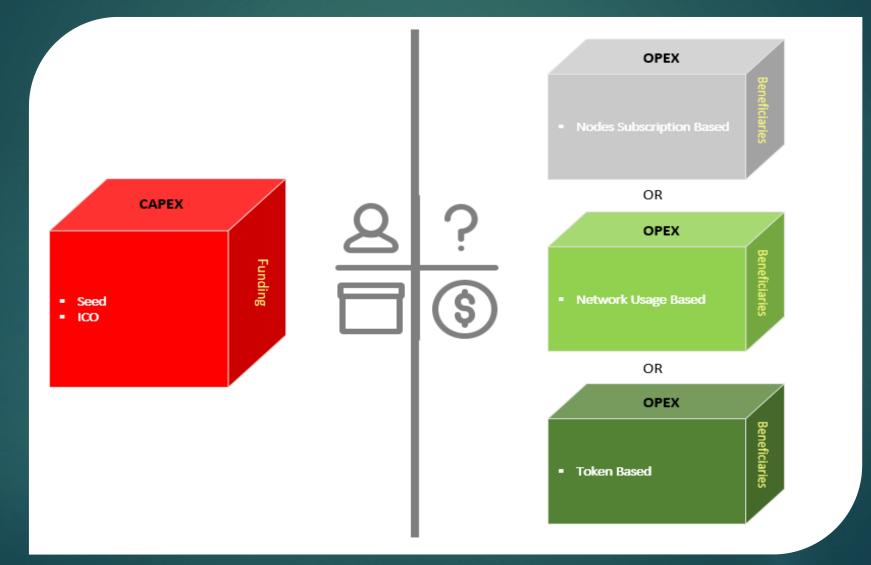
- Witness 100
- Commercial Identity 200
- Partnership Deed 300
- Limited Liability 400
-

Pull Model

No.	Use Cases Name (Transactions Types)	Requestor
1	Customer Onboarding Use Case	Customer
2	Business Onboarding Use Case	Business
3	Verification Use Case	Any Entity
4	Risk Notifications Use Case	Customer or Business
5	Annual Profile Review Use Case	Customer or Business
6	Retire Record Use Case	Customer or Business
7	Activate Record Use Case	Customer or Business
8	Customer Consent Use Case	Customer or Business

Use Cases

DKYC Business Models



DKYC: to **bank** the **unbanked** in Decentralized manner

Conclusion:

- Initial model to decentralize the KYC in trustless ecosystem

- Open areas for research are fraud protection using artificial intelligence, creating the devices' identity, dApps application models, on-chain/offchain oracles,

Thank You