11th International e-APP Forum

Blockchain-based e-Register network: Korean use cases and global extension

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Ministry of Foreign Affairs

Government Innovation for a better life

Better Government

[1] e-APP of the Republic of Korea

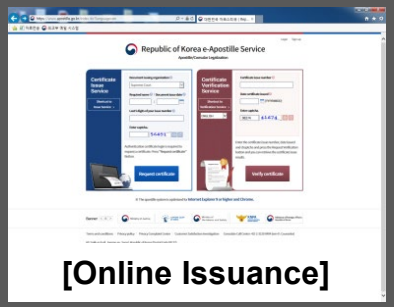
Government Innovation for a better life
Better Gov.

2016.Nov.30.

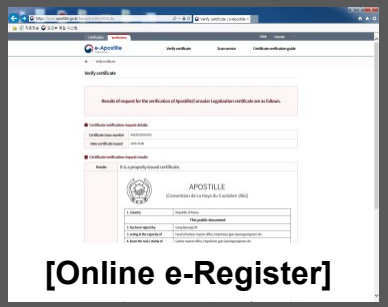
- Build 2nd Apostille system
- Online Apostille certificate issuance service
- Online e-Register service
- Advanced Apostille legacy system

2019.Jun.30.

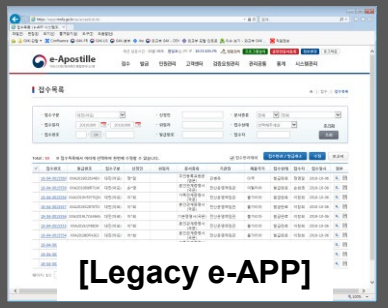
- Applying the blockchain to consular legalization
- Cooperating with 14 commercial banks (6,400 branches)



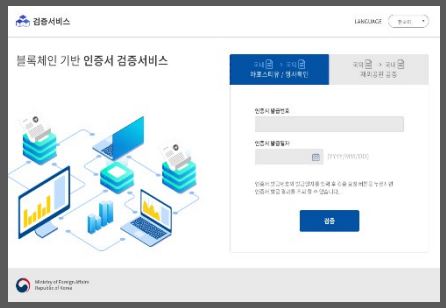
[Online Issuance]



[Online e-Register]



[Legacy e-APP]



2007.Jun.29

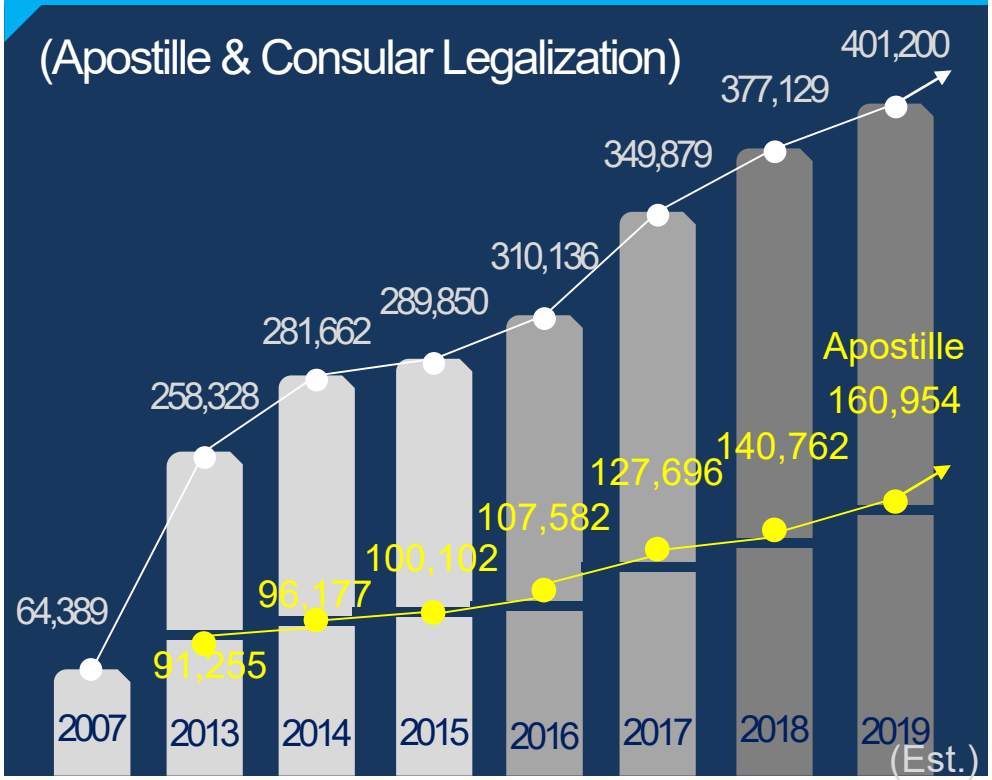
- Join the Apostille Convention
- 1st Apostille Legacy System
- e-Register Service (x)

2018.Dec.31

- Applying the blockchain technology to legacy e-APP & e-Register

[2] Korea e-APP : Key Statistics

Number of Issued Certificates in Korea



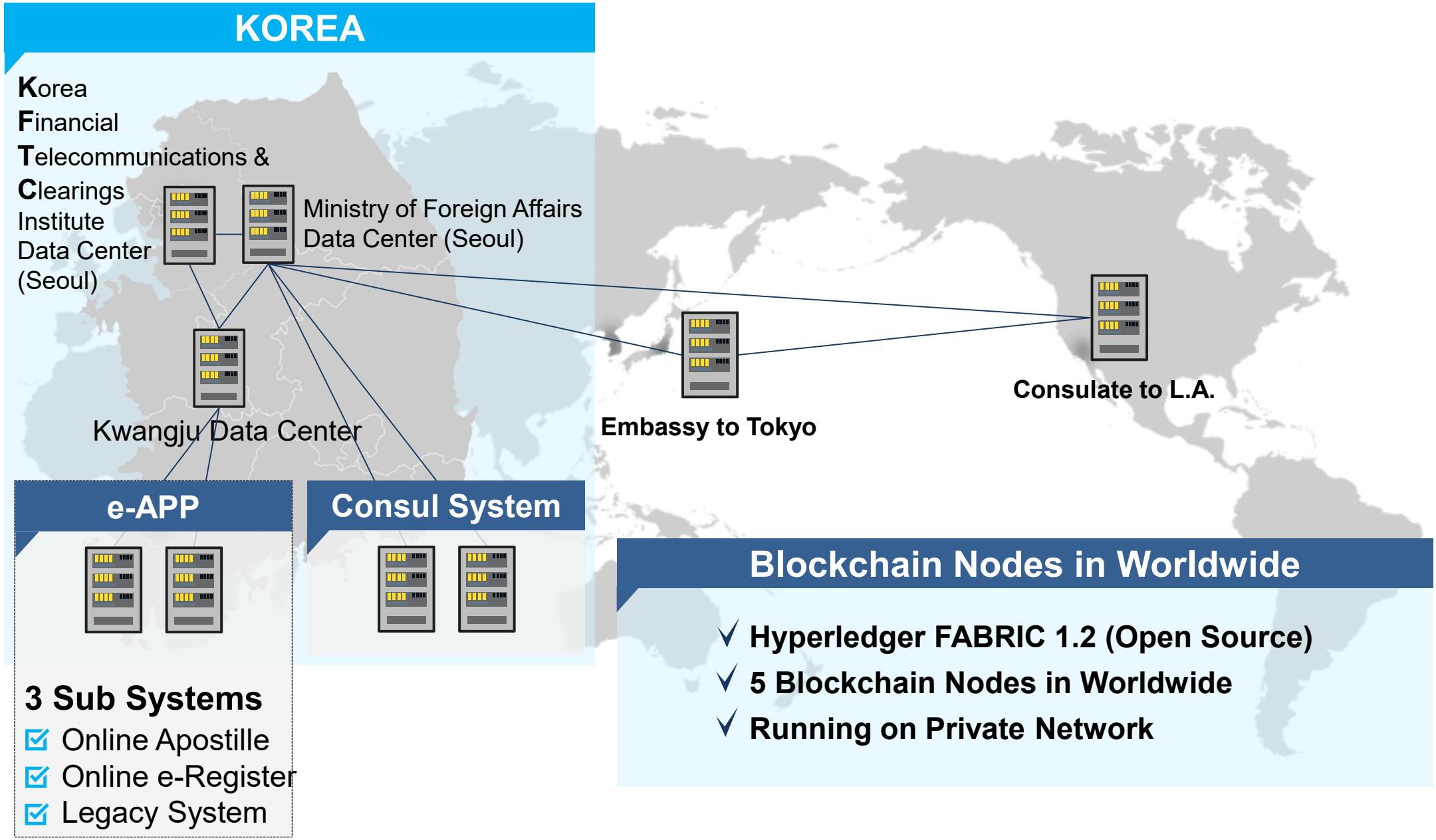
- # of issued certificates is exploding (CAGR = 17.44%)
- Urgent need for an efficient information system for e-APP
- 120,716 Apostilles has been issued until Sept.

	Apostille (Total)			Online Apostille	
year	Official document	Notarial deed	SUM	Official document	Ratio
2019	72,668	88,286	160,954	19,795	27.24%
2018	62,900	77,862	140,762	14,481	23.02%
2017	54,551	73,145	127,696	10,161	18.63%
2016	42,406	65,176	107,582	863	2.04%
2015	39,537	60,565	100,102	0	

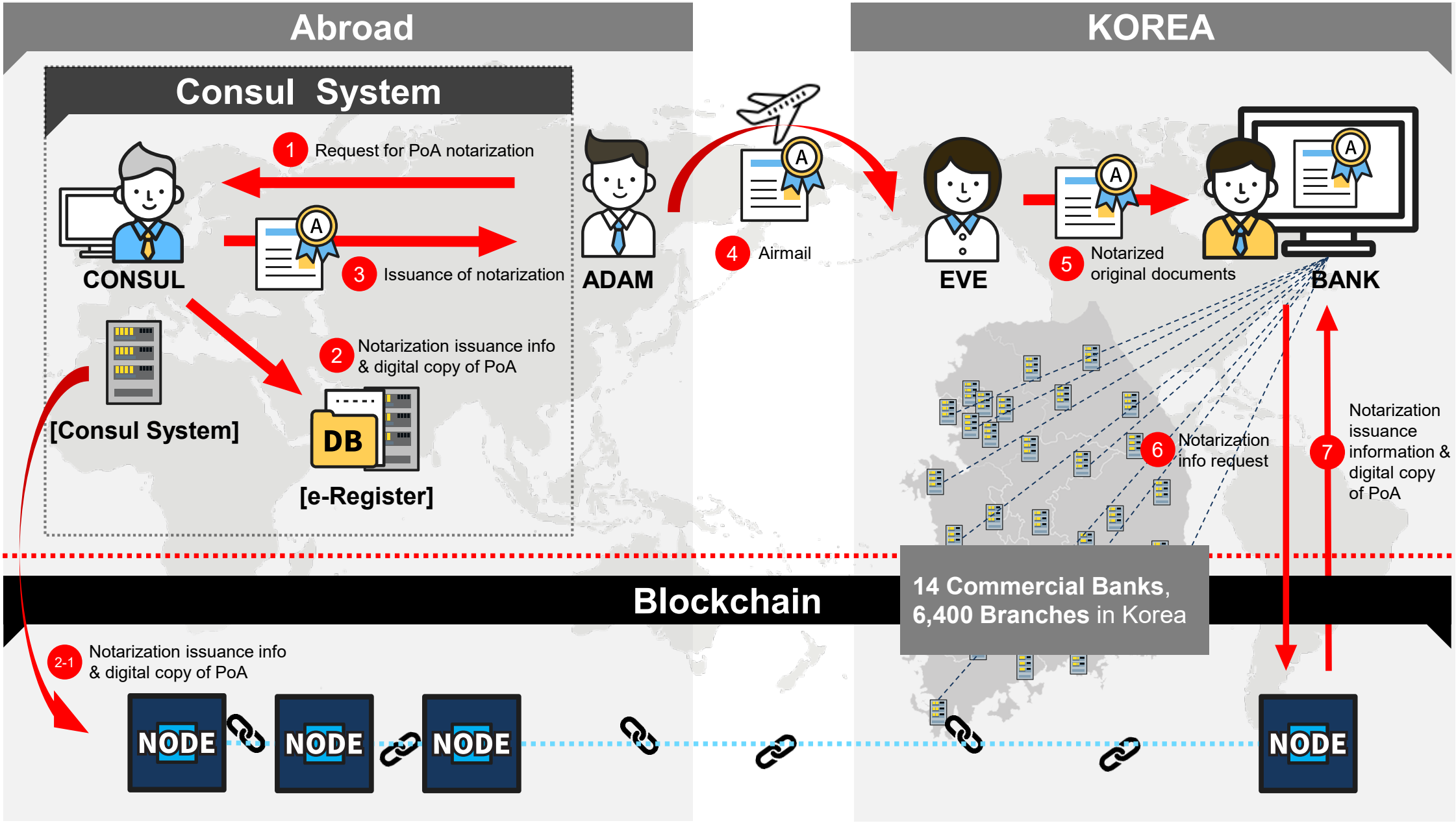
Online Apostille Service for Overseas Koreans.

- Consideration 1: Official documents are written in Korean. Thus, applicants need a notary for translation.
- Consideration 2: Current online Apostille supports only nine kinds of official documents. (e.g. Family relations certificate)

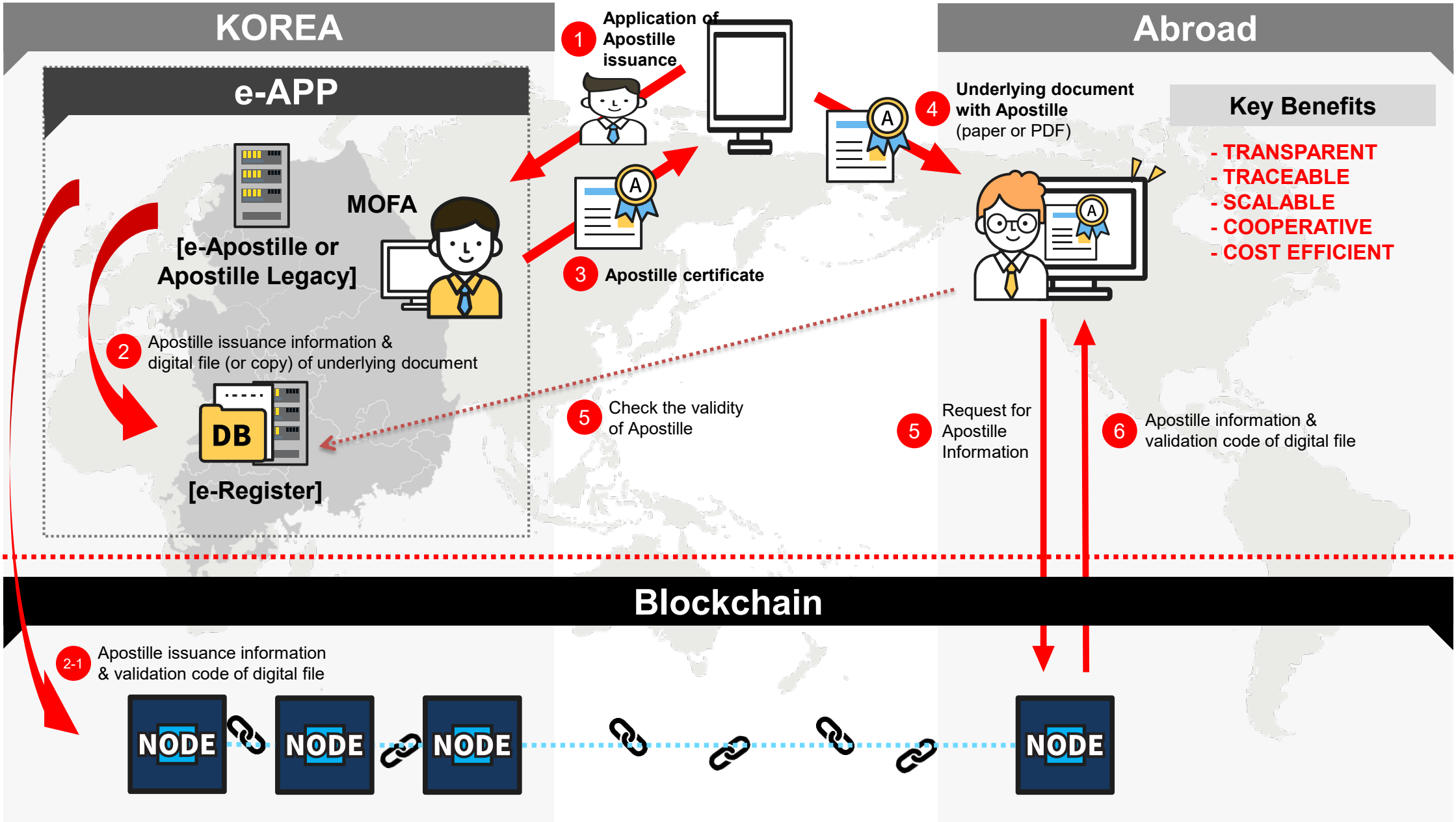
[3] System Structure (e-APP & Consul system for consular)



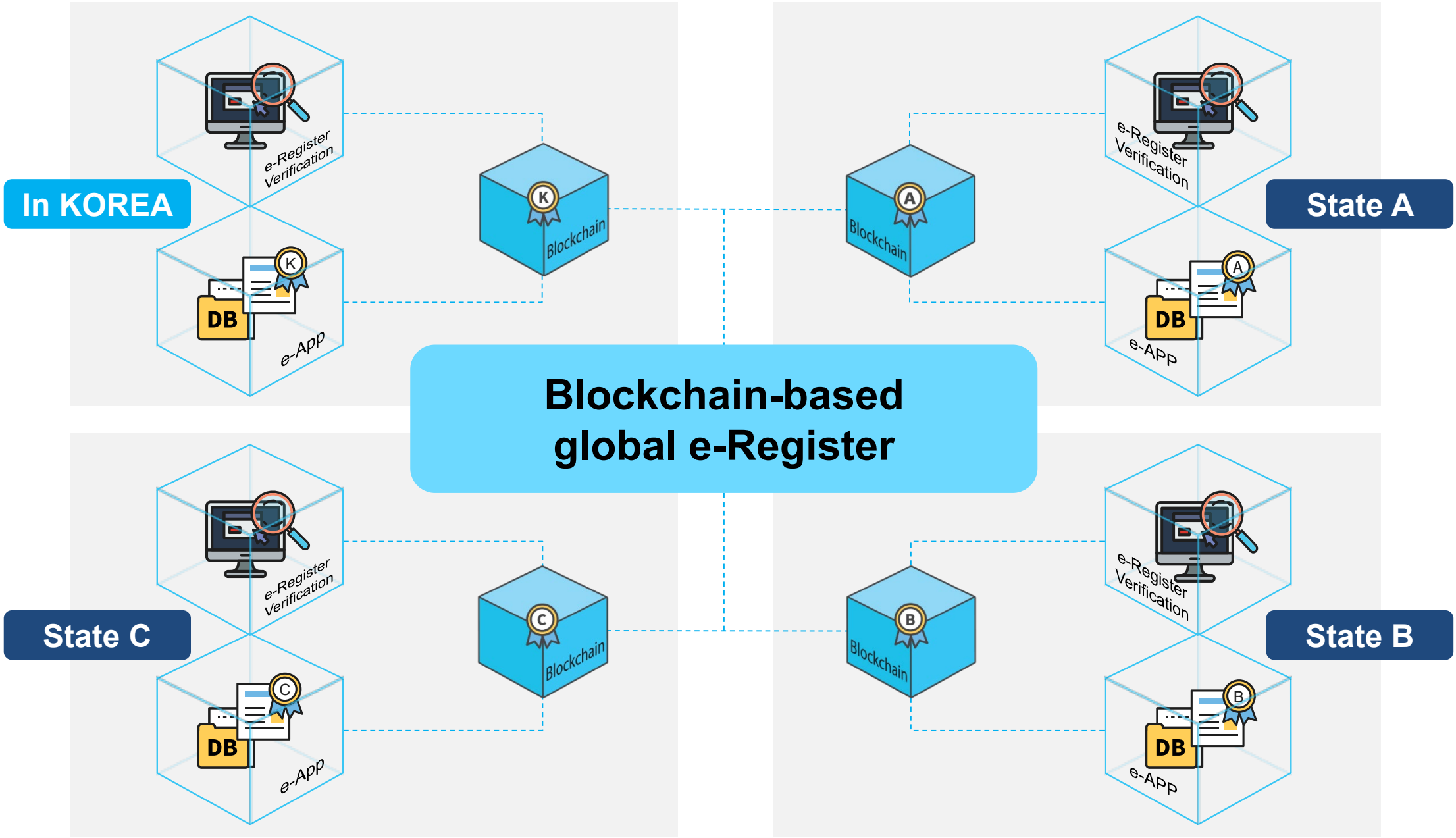
[4] Practical Case : Notarization from consul in abroad



[5] Proposal : Blockchain-based Global e-Register System



[6] How to apply Blockchain to a global e-Register System?

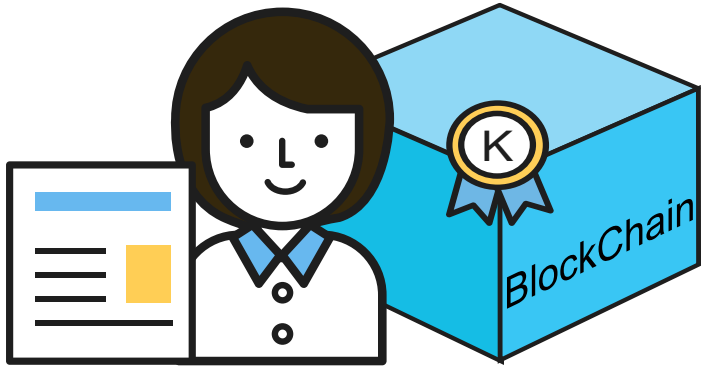


[7] Conclusion

- **A blockchain-based global e-Register network is shown to work, to be scalable and to benefit contracting parties.**
- **It is cooperative, transparent, traceable, scalable and cost-efficient.**
- **Common input variables and blockchain technologies will optimize the system.**

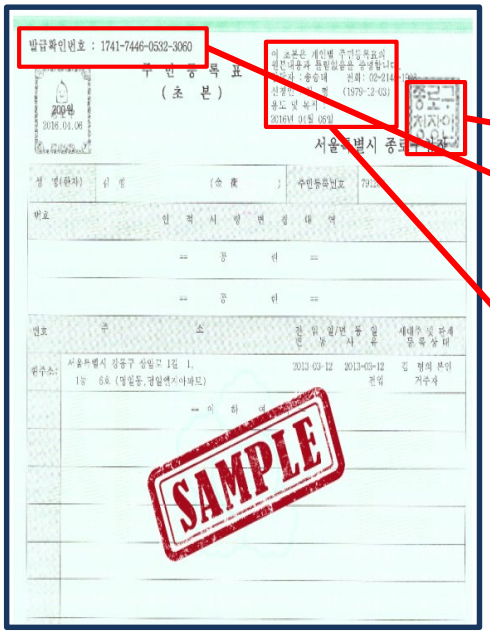
Thank You

Appendix 1. How to Issue Apostille on Internet



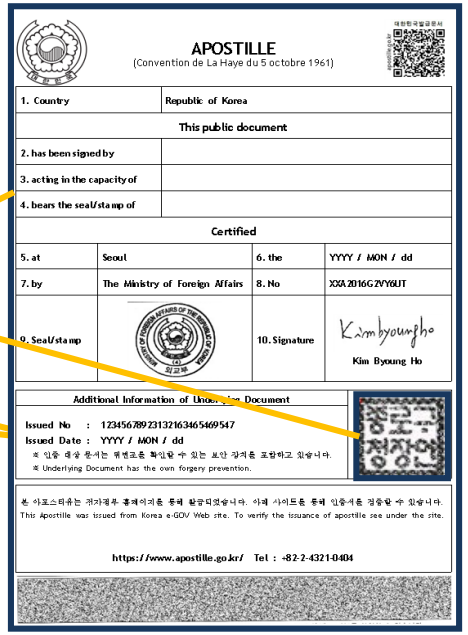
Seamless e-Government

- **Supreme Courts** — efamily.scourt.go.kr
- **Ministry of Justice** — enotary.moj.go.kr
- **Ministry of Interior and Security** — www.minwon.go.kr
- **National Police** — minwon.police.go.kr



e-APP of Ministry of Foreign Affairs

- Issuance **Number** of underlying document
- Issuance **Date** of underlying document
- **Information of Authority**
  - SEAL Image
  - Position of officer
  - etc
- Validity of underlying document (expire date & permission)

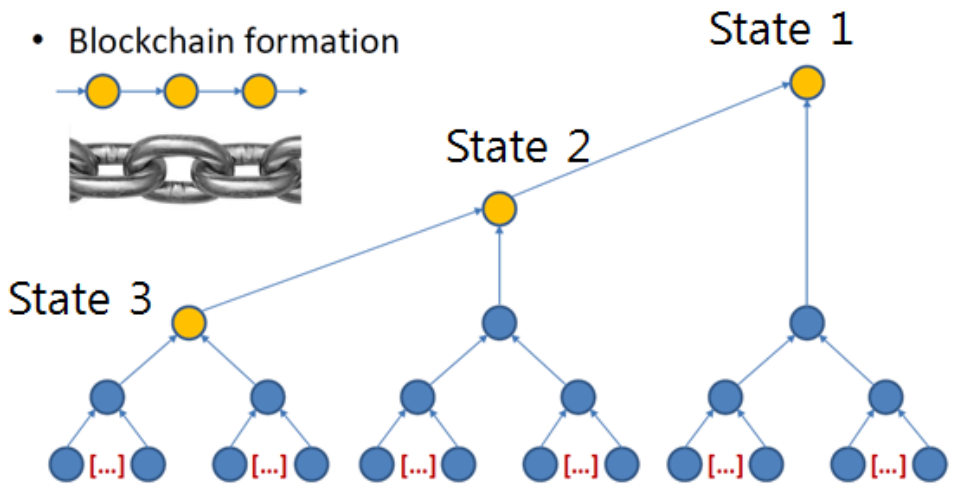


Appendix 2. Blockchain Technology

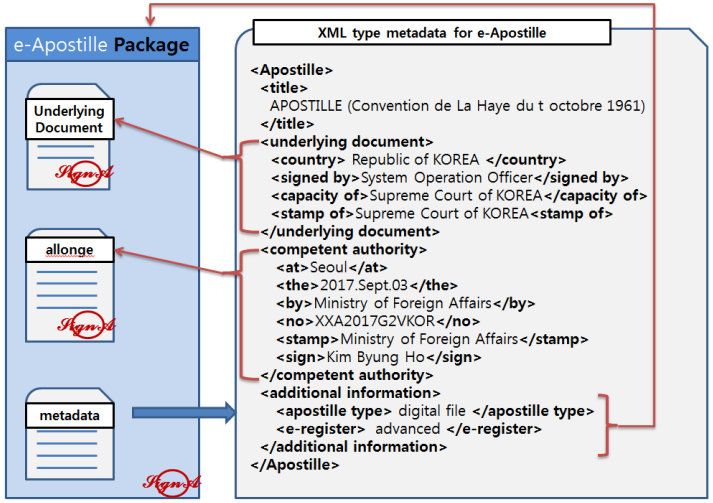
- 2016 10th International e-APP Forum C&R (Conclusion & Recommendation)

> 6. Participants noted with interest the developments reported and updates provided by the experts in attendance, from both Contracting Parties and the invited observers. In particular, the Forum noted with great interest the initiatives of the DONA Foundation and the InterPARES International Research Project, acknowledging the utility of harnessing the power of technologies such as the Handle System, Cloud-facilitated document preservation and Blockchain. Participants were invited to continue to study the relevance of these and other related technologies for the e-APP.

- 10th Forum - Digital Object Architecture TRUSTER Preservation Model

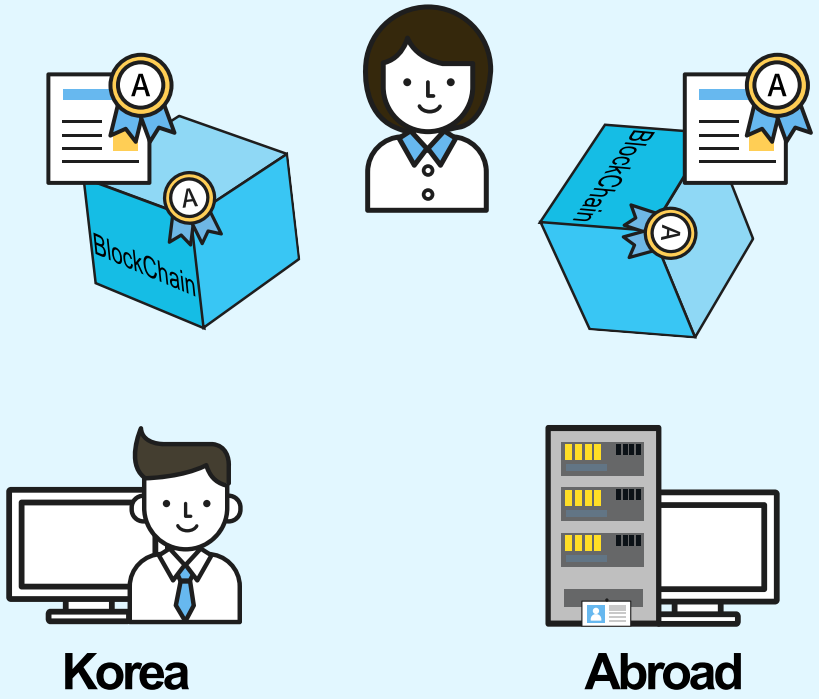


- 2017 HCCH Asia Pacific Week Template of e-Apostille

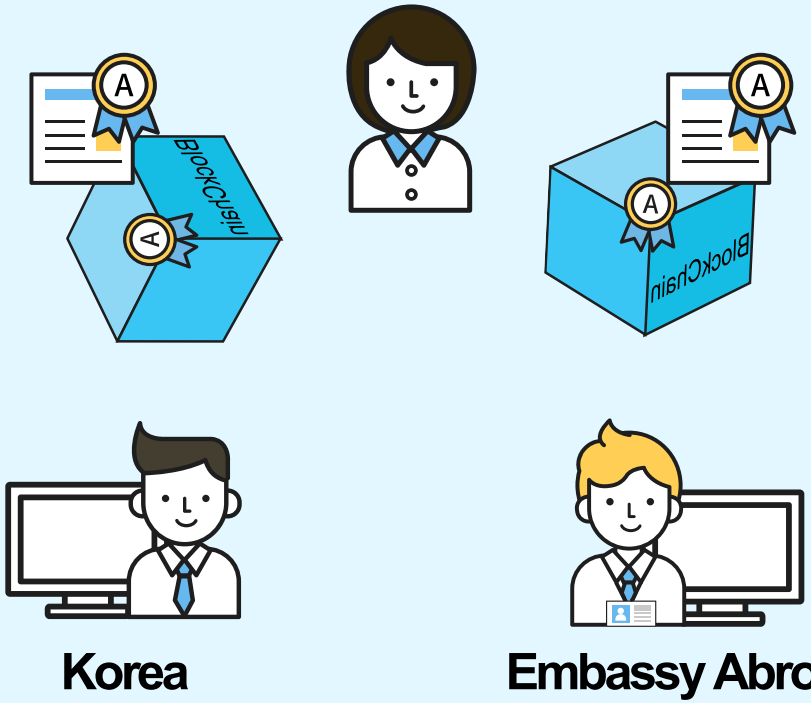


Appendix 3. Apostille Process vs Consular Notarization

Apostille From Korea



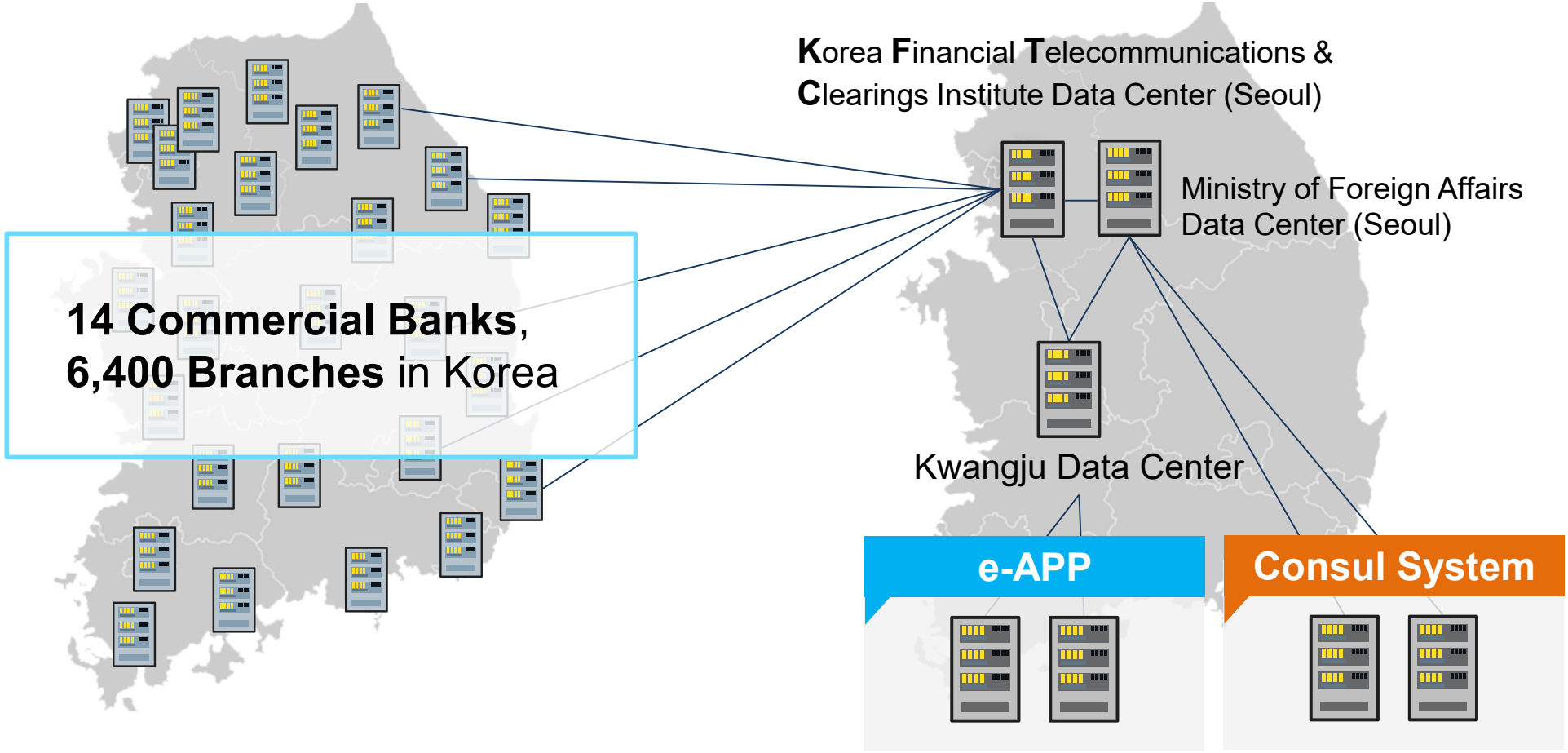
Consular Notarization From Abroad



Example

Overseas Korean nationals need power of attorney(PoA) for banking service in Korea. Notarization of PoA by Korean consul is required.

Appendix 4. System Structure (e-APP & Consul System & Banks)



Banks can check the power of attorney (PoA) notarized by consuls and see scanned PoA in their own banking system connected to the blockchain provided by KFTC (Korea Financial Telecommunications & Clearings Institute Data Center).