

# ICT Solutions for CGM

Facilitation of Regional Transit Trade for CAREC (ADB)

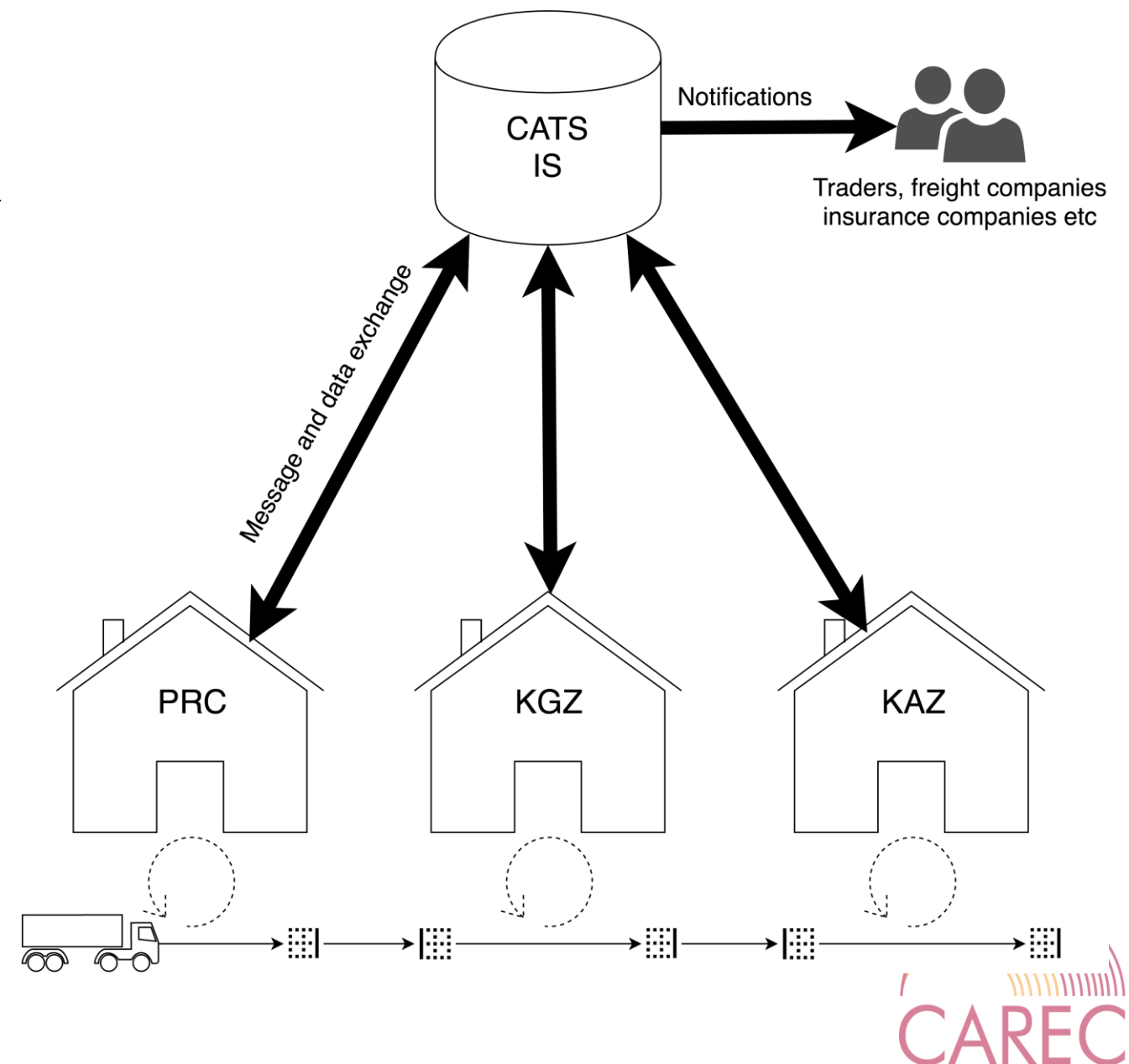
*Overview and Recommendations*

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# ICT system – general requirements

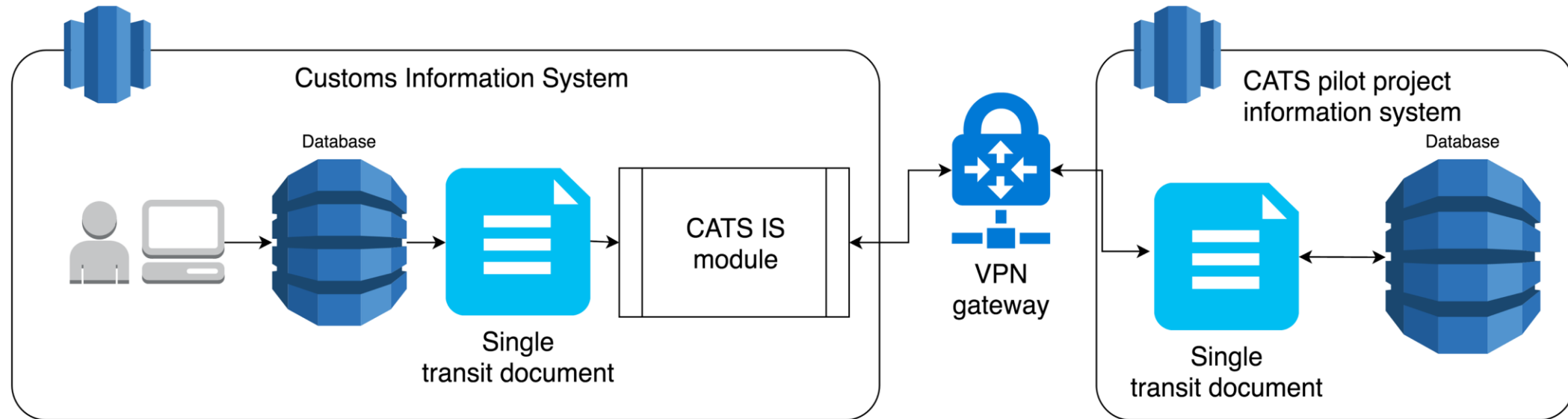
- A centralized protected system using reliable communication channels for data exchange with all participants
- Unified data exchange interface
- Advanced ownership/permission control for all data items/messages
- Digital signature usage



# ICT system - components

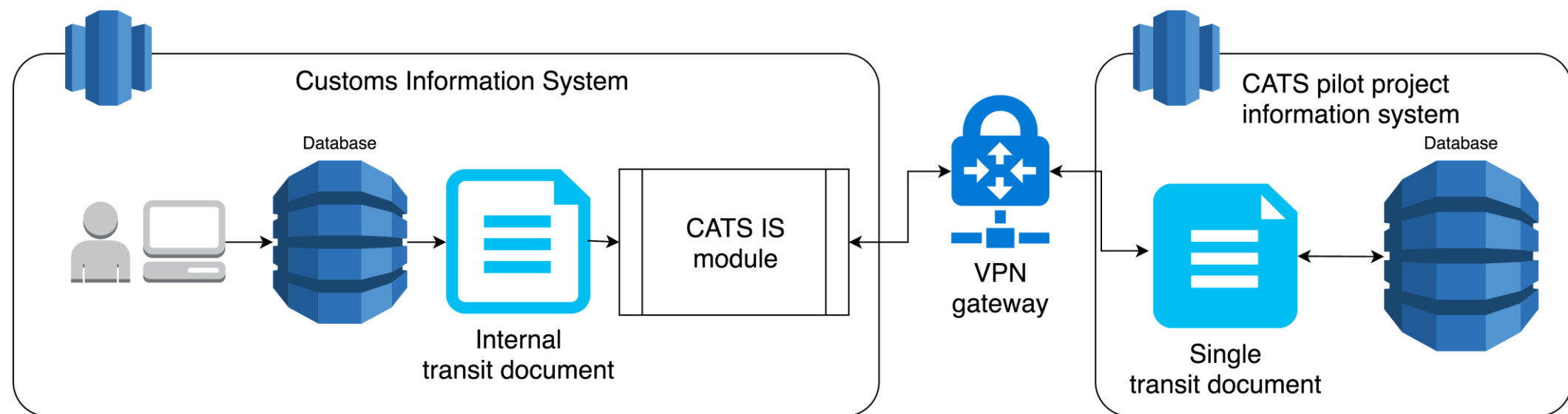
- Data exchange platform, ensuring, first of all, operations with the single transit document
- Platform for message exchange
- System for message/document routing as consistent with a transit route
- Input data format and logic control system
- Internal payment system or integration with an existing payment system to process and/or control automated money transfers for CGM purposes
- Notification interfaces (email, SMS, instant messengers)
- Fallback & Recovery System

# Interface - single transit document based



- using own customs information system, to work directly with the single transit documents, located in the CATS information system

# Interface - internal document based



- transparent translation of the data, contained in the customs information system, into the single transit document stored in the CATS IS

# Implications for ICT systems

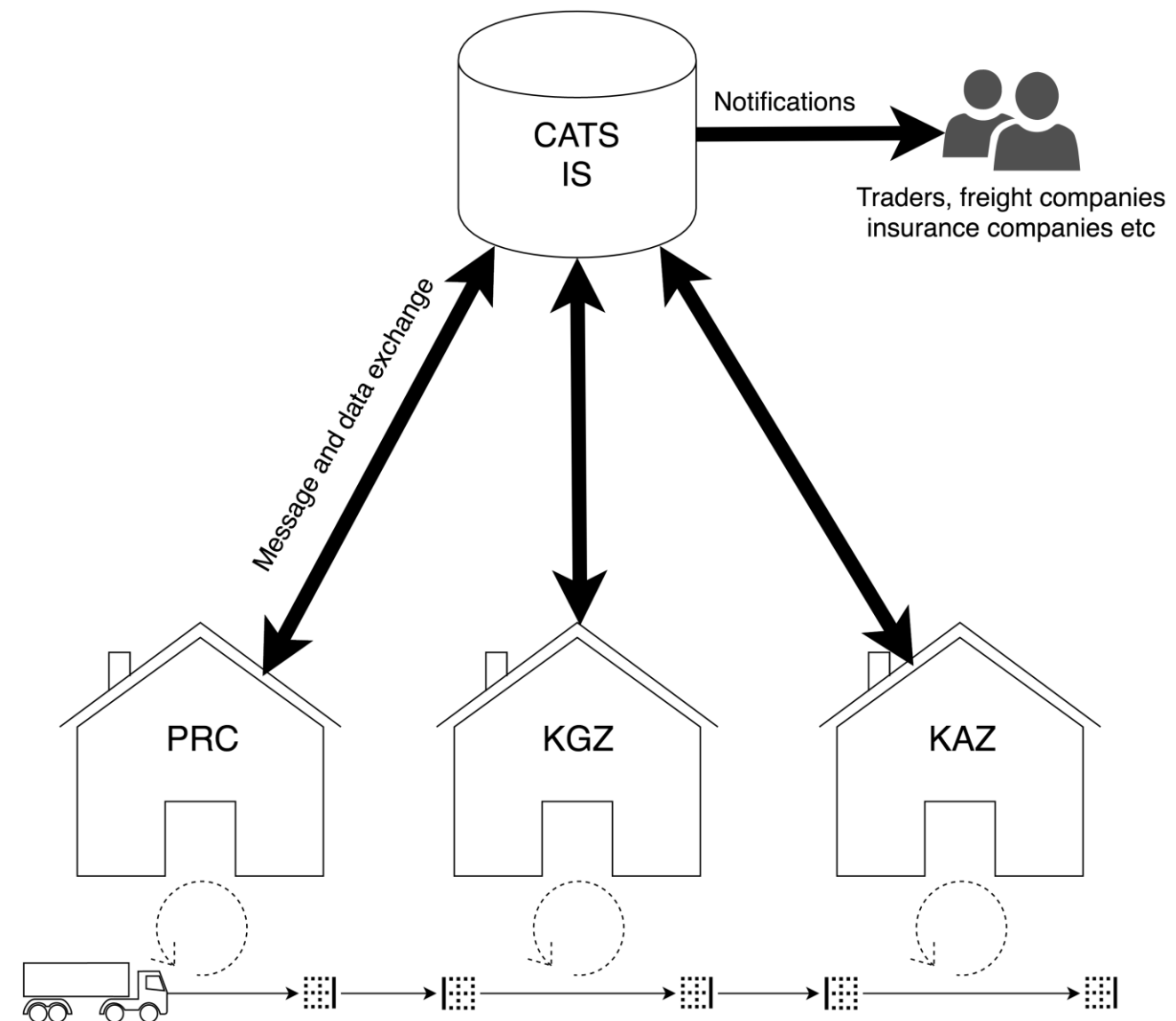
- Customs Automated Systems
  - A protected high-speed reliable communication channel with CATS IS
  - A gateway supporting data exchange and messaging with CATS IS on the side of the customs IS
  - Corresponding modifications in the components related with the transit, risk management, Authorized Economic Operators registries and other transit-related modules

# Implications for ICT systems

- Other potential integration/interfaces
  - Single Window Principle Implementation Projects
  - Payment Systems
  - Major Market Participants' Information Systems

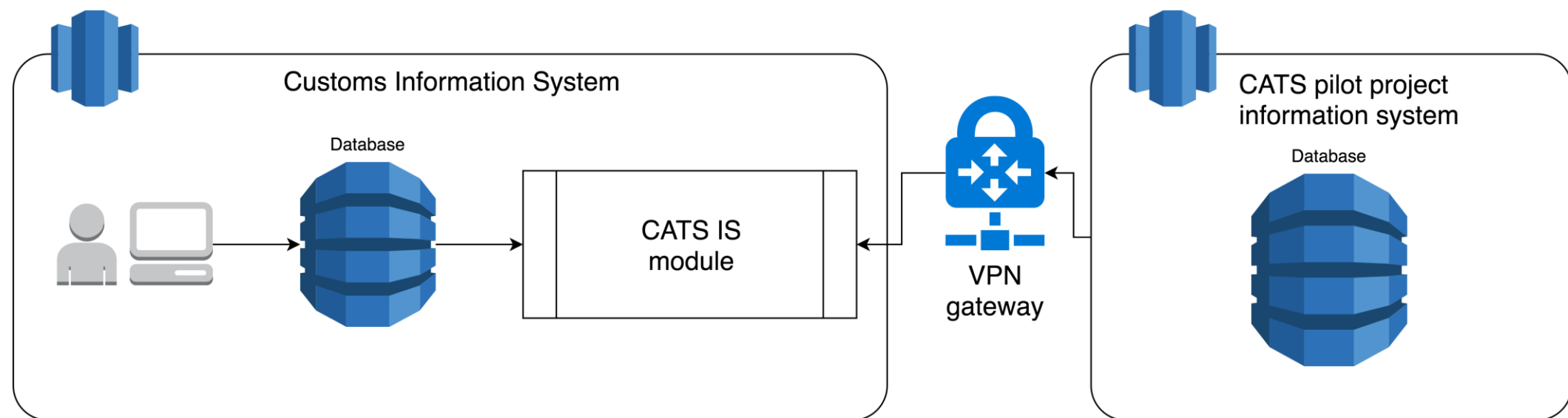
# Suggested ICT system architecture for the pilot project

- General requirements
  - A centralized protected system using reliable communication channels for data exchange with all participants;
  - Unified data exchange interface open to the participants, based on the standards used by the majority of the participating countries
- Components:
  - Data exchange platform supporting operations with the agreed single transit document;
  - Platform for message exchange between the participants, which will be used, inter alia, to support the processing of payments under the CGM;
  - Status control of the of guarantee payments under the CGM;
  - Notification interface (email, SMS, instant messengers) for all system participants, including the carriers, customs brokers and freight owners, for the delivery of notices and document statuses, and messages within the system, such as the status of transit, etc.



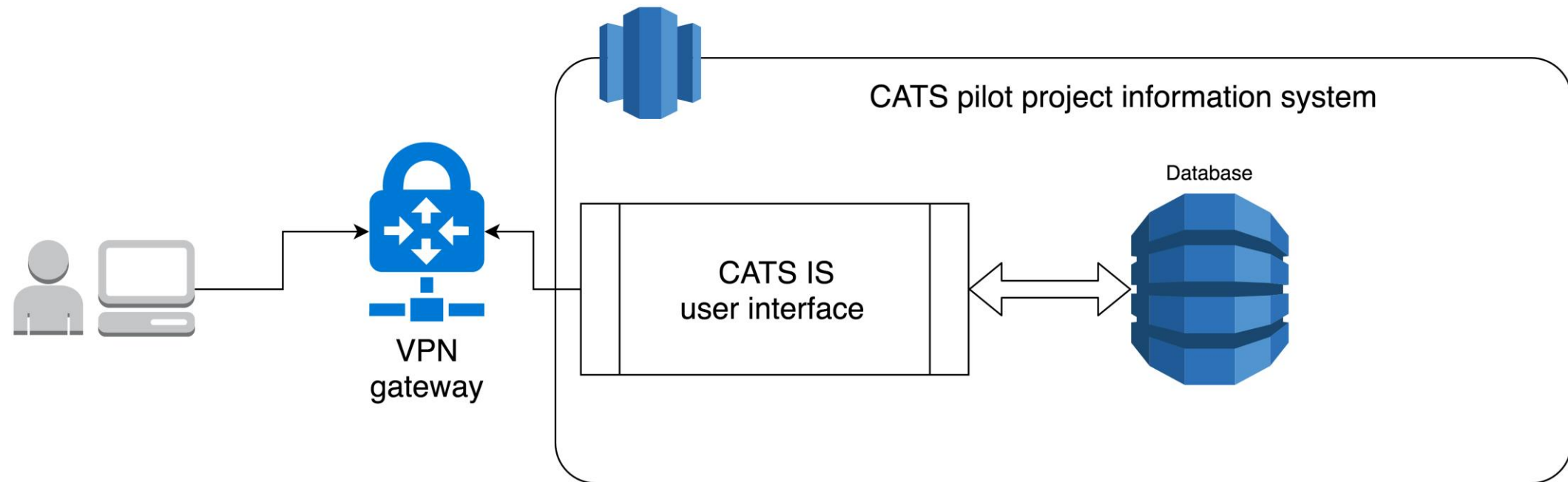


# Interface - CATS IS module



- a. Gateway enabling customs personnel to access the single transit documents in the CATS information system directly from their customs information systems;
- b. Gateway providing transparent translation of the data from the customs information system into the single transit document format

# Interface - CATS IS module



- Interface on the CATS IS side, enabling customs officers to work with the single transit documents, messages, and notices directly in the CATS IS

# Internationalization (I18N) issue

- An option, where the fields in the documents to be lodged are filled in all necessary languages (Russian and Chinese);
- Use of the agreed glossary of terms
- Use of a machine translation system, including the translation of attachments to the single transit document

# ICT systems in Pilot countries - Kazakhstan

- UN E-Government Development Index 28 (+10)
- ASYCUDA migration - 2017
- Eurasian Customs Union - modernization
- Web-services
- China - Kazakhstan data exchange experiment\*
- own vision of Single Transit System

\* I18N(!)

# ICT systems in Pilot countries - Azerbaijan

- One of the leading countries of the region
- UN E-Government Development Index 68 (+28!)
- A goal to secure a place of the regional ICT leader (Eurasian Connectivity Alliance)
- Automated Customs Management (UAMS) developed in-house
- Maximisation of use of Information Technologies
- Performance Measurement and Development Department
- 12 on-line services available on the integrated e-governmental portal (e-gov.az)

# ICT systems in Pilot countries - Azerbaijan

- Customs data exchange:
  - Georgia – full bilateral data exchange
  - Russian Federation - full bilateral data exchange
  - Islamic Republic of Iran – a protocol signed in February 2016
  - The GUAM Organization countries (Georgia, Ukraine, Azerbaijan, and Moldova) – a formal protocol signed in June 2015
  - Turkey - protocol drafted
  - Uzbekistan - protocol drafted

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For all the CAREC countries visited during the field mission, CATS IS integration in Azerbaijan requires less time and effort than anywhere else.



# ICT systems in Pilot countries – Kyrgyz Republic

- UN E-Government Development Index 101 (-1)
- Unified Automated Information System
- Eurasian Customs Union - modernization
- Full-scale data-exchange with ECU countries
- Foreign Trade Single Window project

# ICT systems in Other CAREC countries – Mongolia

- UN E-Government Development Index 65 (+11)
- In-house development
- Customs Automation information system (CAIS)
- Customs External Portal (CEPS)
- Pilot project on customs manifest exchange with the PRC and the Russian Federation (IBM WebSphere)
- Foreign Trade Single Window is on hold



# ICT systems in Other CAREC countries – Tajikistan

- UN E-Government Development Index 129
- Unified Automated Information System (UAIS)  
(supported by ADB)
- UAIS include 11 subsystems, 13 components and 21 "sub-processes"
- Four external interfaces
- Bilateral data exchange with the Russian Federation and the PRC (planned)

# ICT systems in Other CAREC countries – Turkmenistan

- UN E-Government Development Index 128, internet services are the least developed in Central Asia
- Does not have an integrated IT solution or platform
- Consider ASYCUDA as a potential platform for automation
- The only real and regular data exchange is a "file exchange" with local IRU representative (THADA)
- Could use CATS IS directly for day-to-day operations related to transit

# ICT systems in Other CAREC countries – Uzbekistan

- UN E-Government Development Index 100 (-9)
- Customs automation in Uzbekistan includes 30+ information systems
- More than 20 services available on-line ("Electronic Government" system)
- "MCAT" (IRU)
  - Real-time SafeTIR data
  - TIR Electronic Pre-Declarations data

# Conclusions: ICT readiness

- Option A, Kazakhstan and the Kyrgyz Republic are technically ready for the implementation of the pilot project in line with the proposed architecture
- For Option B, Azerbaijan is the most advanced in the CAREC region in terms of its IT system, its institutional framework and its regional links
- Careful analysis of the changes is needed when drafting the specification of requirements for development of information system for the pilot project

# Conclusions: ICT readiness other countries

- All countries are potentially (technically) ready for the implementation of the proposed architecture
- For Turkmenistan CATS may provide direct user interface to access data

# Conclusions: ICT readiness other countries

- PRC Customs - it is hard to determine the amount of effort required to integrate the PRC Customs IS, and the CATS IS. However, a number of initiatives on data exchange indicate that the PRC customs IS is flexible enough
- Due to the security restrictions, the team was not able to visit Afghanistan during the mission
- The team have encountered difficulties in obtaining the requisite data and information from Pakistan.

# Recommendations

- Pilot project
  - Software Requirements Specification
  - Comparability with existing system
  - New requirements and dependencies
- Information system for CAREC Advanced Transit System
  - Based on the pilot project
  - Detailed workflows and in-deep analysis
  - SRS