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**MIST: Aerospace**

Advanced Technologies in Aerospace,  
Mechanical and Automation Engineering

Science and Technology City Hall  
KRASNOYARSK, RUSSIA

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# «MIST: Aerospace - 2021: Advanced Technologies in Aerospace, Mechanical and Automation Engineering»

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## «Methodology for the Development of a Distributed Information System»

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# Problem statement

- **Problem statement:** introduction of certain formalism for describing the business logic of the application.
- **Task 1:** propose a universal data storage pattern.
- **Task 2:** propose a universal data exchange pattern.
- **Task 3:** propose a formal language description of data exchange format.



# Solution methods

- Comparison of existing **IaaS**, **PaaS** and **SaaS** methodologies.
- Proposal of the original methodology: **Request as a Transaction (RaaST)**.
- **RaaST** can be implemented by means of two approaches:
  1. Transaction as a Unit of Data Exchange;
  2. Transaction as an Entity.



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# Conclusions

## Results, implementation

- The disadvantage of the first approach Transaction as a unit of Data Exchange is a complex system for providing secure access to data.
- The disadvantage of the second approach is the complexity of writing a translator for the transaction description language.
- The advantage is that a translator written for a given DBMS-language pair can be injected into the system as a ready-made component.

# Contacts

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