Problems and motivations:
- Contexts are everywhere and are heterogeneous in nature.
  - Various sensors and services from different domains like Telco, IT, Web, etc.
- Context Aware applications have complex design.
  - Context data in its raw or primitive format would be difficult and/or laborious to use and model in applications as the context data could involve numerals and/or the data required could be from multiple context sources.
- Business requires intelligent resource utilization mechanisms for context-aware applications.
  - Process-intensive or long running applications are not suitable to be run on low capability terminals on which the application action needs to be performed.

CAPAS Objectives:
- Provide a multi-domain context gateway (context cloud).
- Distributed architecture for context processing and action execution.
Ideas and Results

- **Context Transformation**
  - CAPAS Platform provides capabilities to transform primitive contexts to processed contexts using transformation rules.
  - Thus the applications can be modeled easily using the processed contexts thus avoiding the usage of fine grained primitive context details.

- **Distribute Execution**
  - Context Transformation execution on CAPAS server.
  - Process-intensive and long-running applications execution on CAPAS server.
  - Terminal API executions on terminal using remote API invocations from CAPAS server.

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<th>Features</th>
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Context Transformation & Application Engine
Multi-domain context gateway
Context Sources – Primitive Data

Transformation Model
Application Model

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Features table:
- **Application Type**: Web-based application, Android terminal application.
- **Context types**: Internet API contexts, Android terminal contexts, Environment sensor contexts.
- **Context data level**: Processed and primitive context data.
- **Terminal contexts and actions**: Local and Remote.