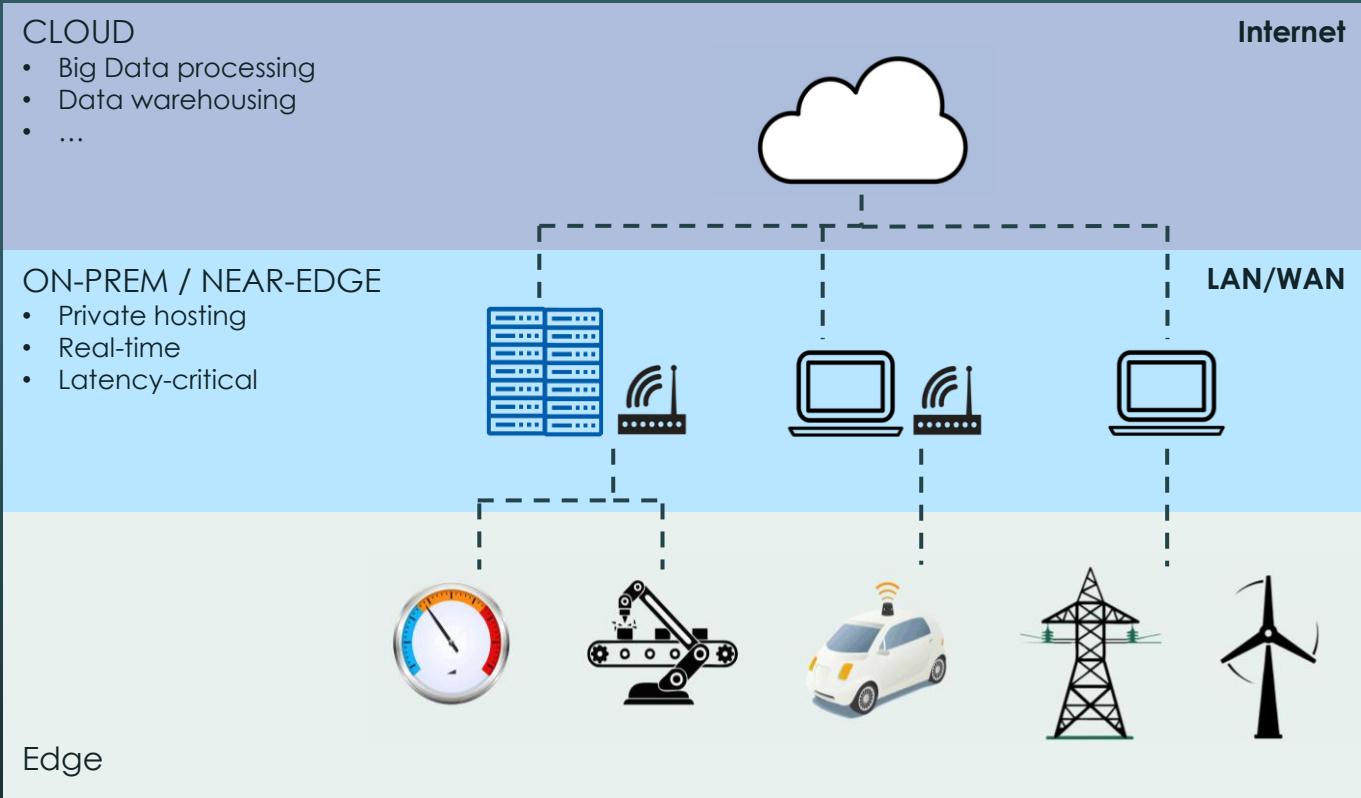


ACCELERATING DATA ANALYTICS

Xelera Technologies

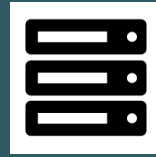
Felix Winterstein

- **Xelera Technologies**
- Use case 1 – intelligent voice recognition
- Use case 2 – predictive analytics acceleration
- Xelera's product portfolio



- Xelera Technologies
- **Use case 1 – intelligent voice recognition**
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Compute server
(near-edge)



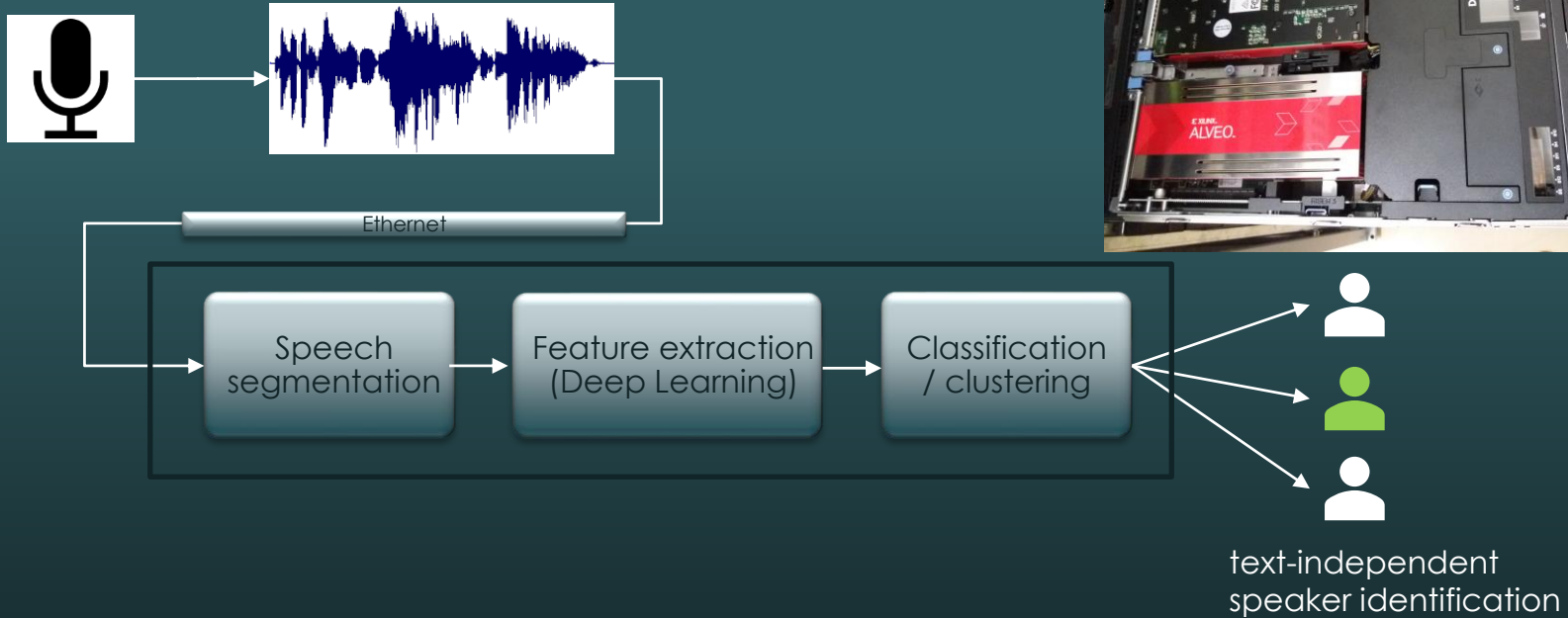
Low latency
connection

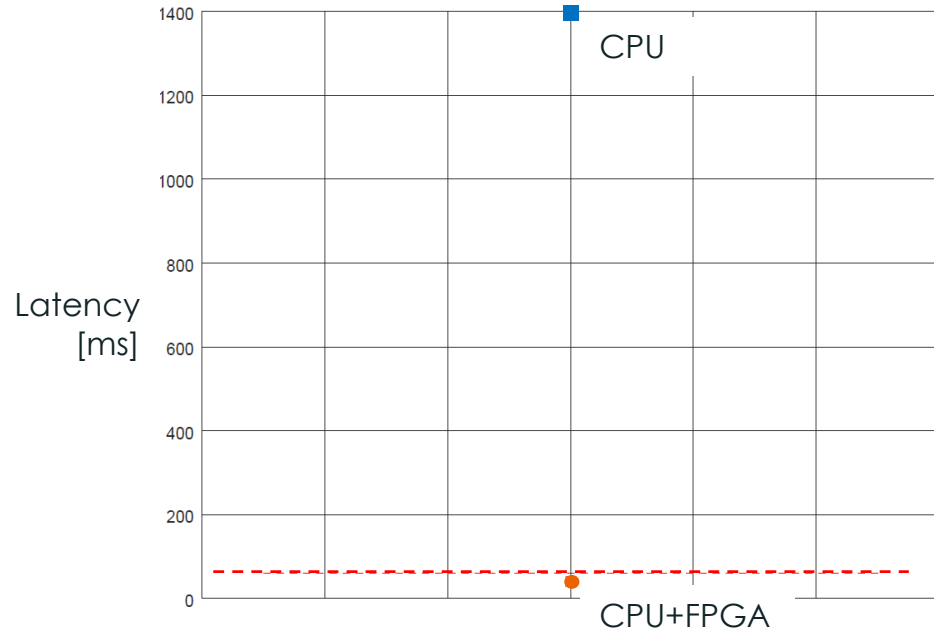


Edge device
(limited compute
capabilities)



60 ms
e2e latency constraint

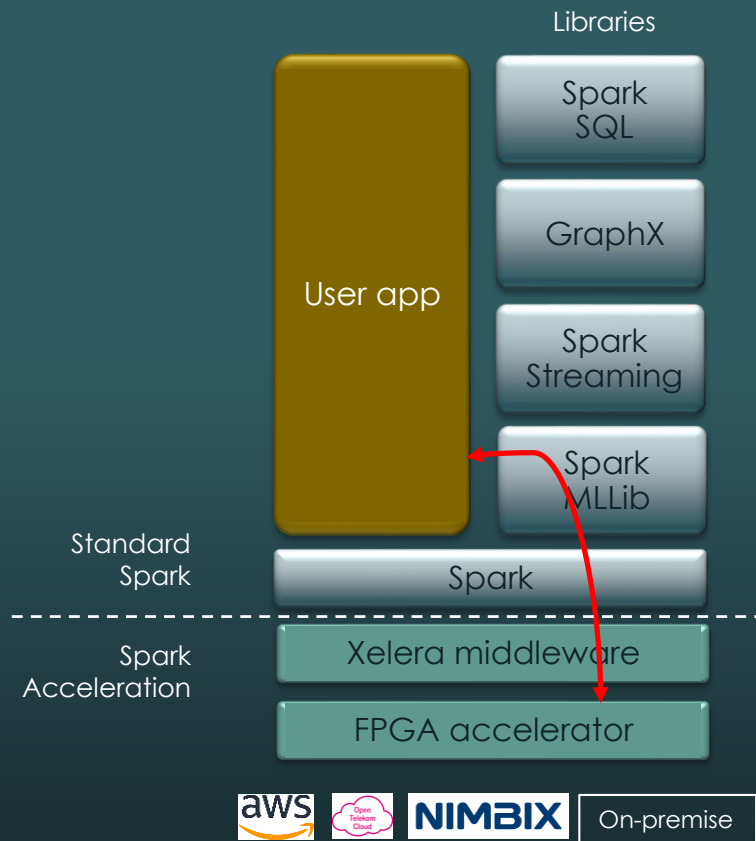




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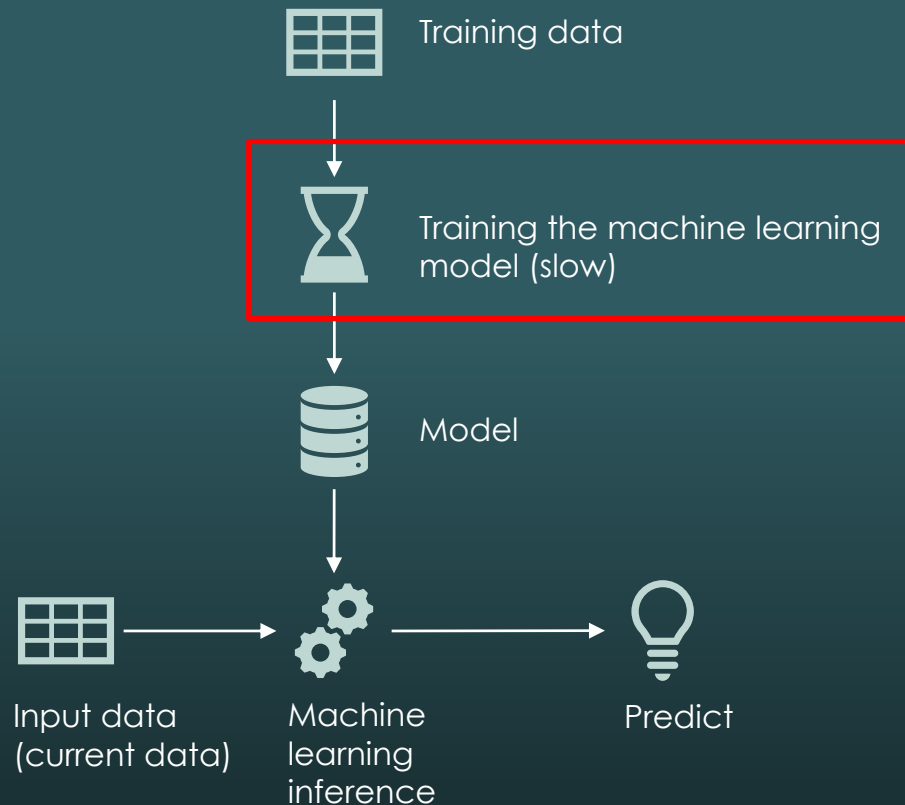


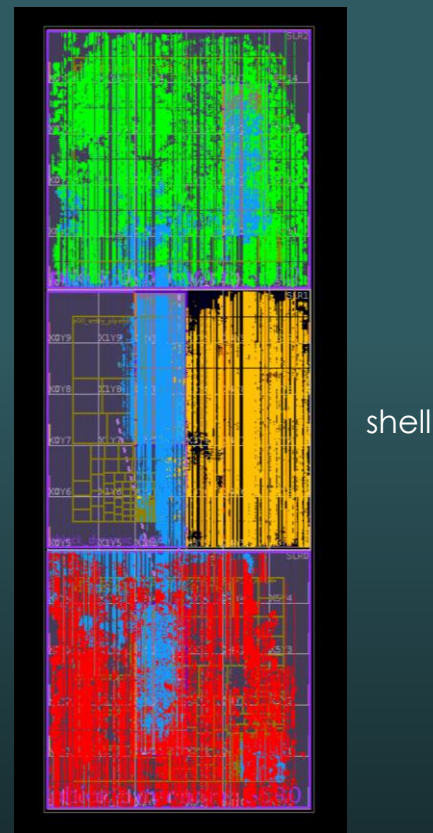
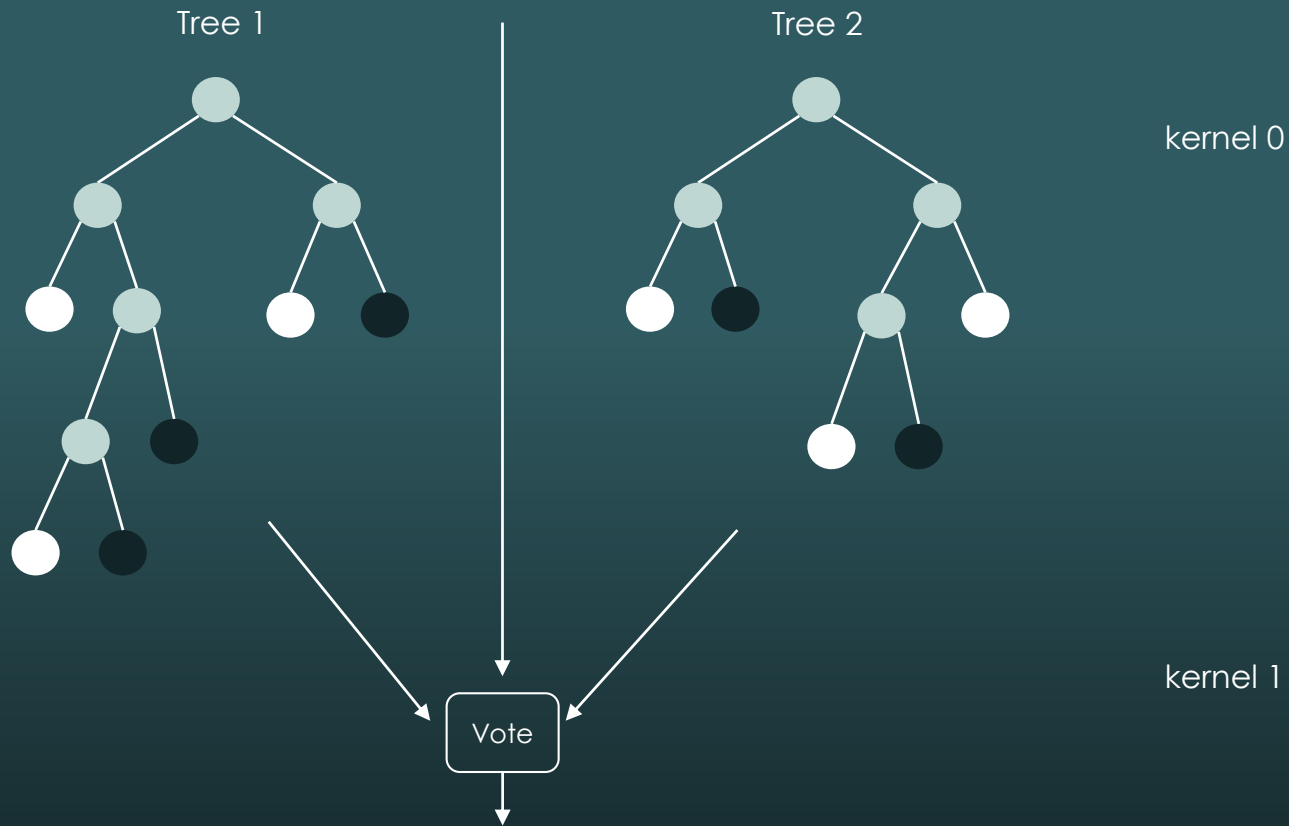
- Popular Big Data software framework
- Open source; strong commercial use
 - Business intelligence
 - Data warehousing
 - Real-time / streaming apps
 - Recommender systems
 - Log processing
 - Fraud detection
- In-memory, distributed
- Combines real-time capabilities and advanced analytics

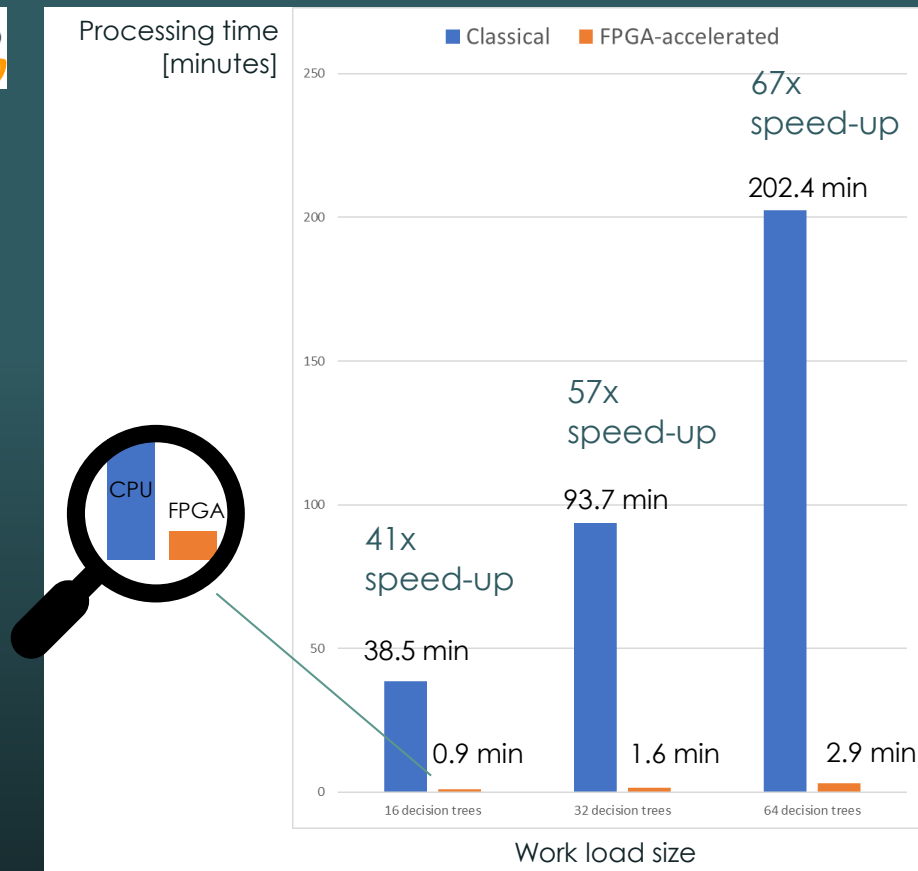


Use case: Real-time predictive analytics

- Target: use existing data to make predictions about a system
- Algorithm: Spark MLlib's Random Forest
- Applied in:
 - Banking / Finance
 - Healthcare
 - Ecommerce
- High-frequency model updates as BI applications move to real-time

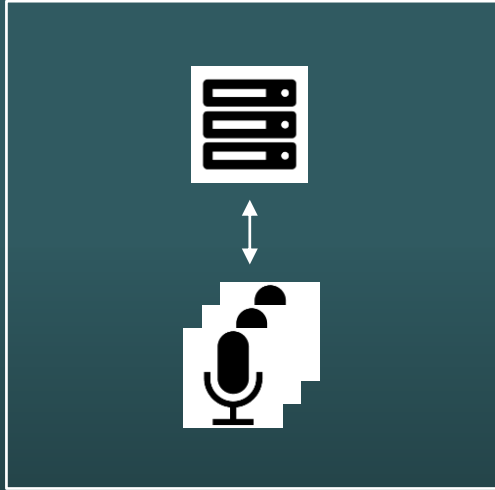




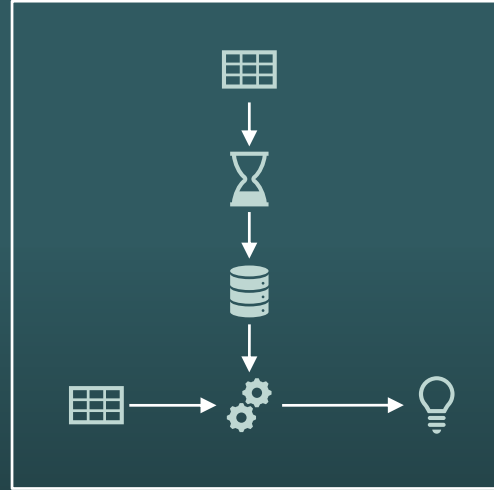


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Use case 1



Use case 2



Platform x Functions x Integration

End user application

Integration hooks



Plugins



XELERA
SUITE

XELERA
ANALYTICS

XELERA
DB

XELERA
NET

Platforms



XELERA

THANK YOU

WWW.XELERA.IO

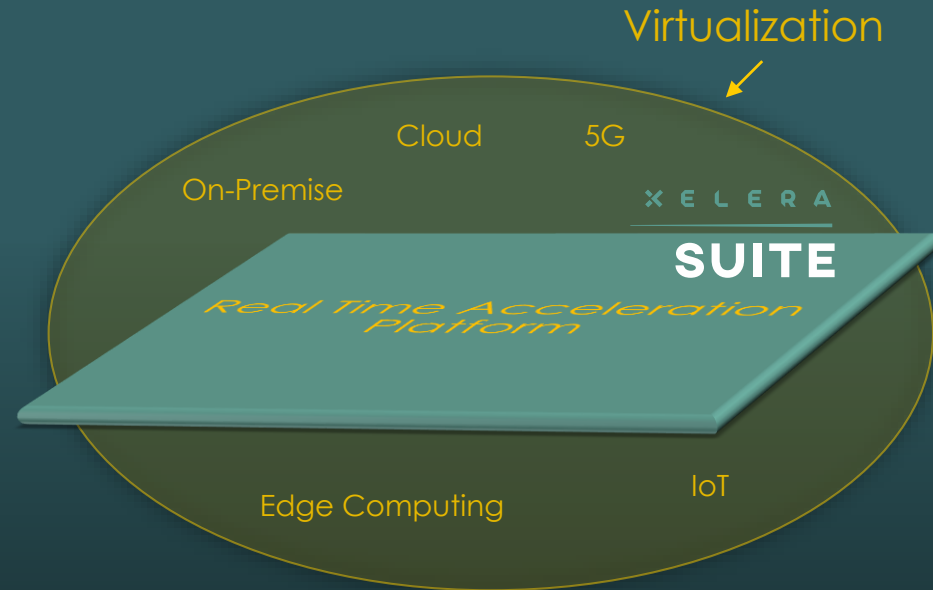
- Performance acceleration for all business critical processes (value contributors)
- Multiple processor architecture
→ Application- and load-based switching
- Seamless integration into business processes, analytics, networks, storage and data bases with

XELERA
ANALYTICS

XELERA
NET

XELERA
DB

- Cockpit and dashboards for control center, online monitoring and reports
- Significant energy savings – lower TCO
- Smooth transition – no disruption



A powerful solution portfolio aligned with the market maturity and expectations

Predict

Pre-purchase assessment

X E L E R A
PREDICT

Assess performance gains, costs and savings when migrating business applications to FPGAs

Suite

Seamless stack integration

X E L E R A
SUITE

Connect business applications with FPGA technology (baseline infrastructure)

Plugins

Plug-and-Play Acceleration

X E L E R A
ANALYTICS

Accelerate complex data analytics applications

X E L E R A
DB

Accelerate performance-critical operations in databases

X E L E R A
NET

Handle large-scale IoT infrastructure with FPGAs at the network edge