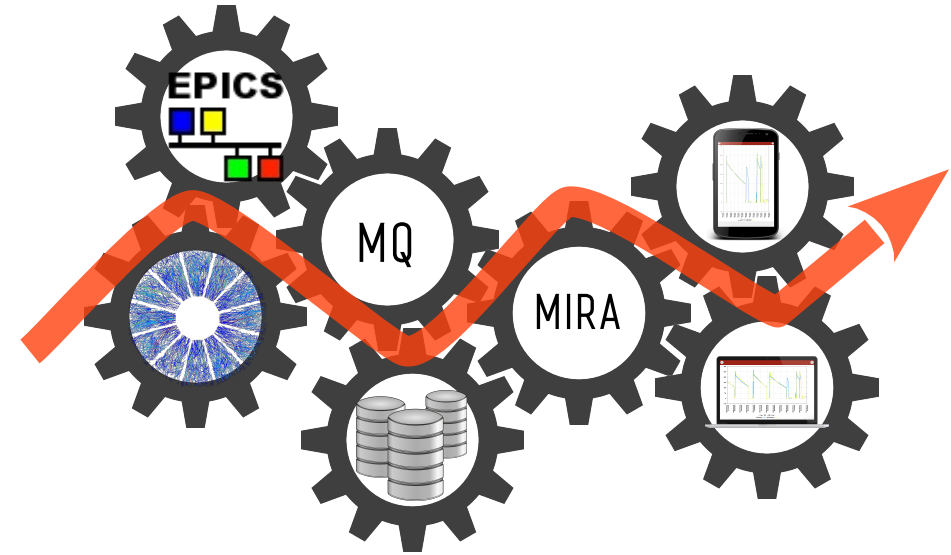# STAR Online Meta-Data Collection Framework
Integration with the Pre-existing Controls Infrastructure

– STAR started with MIRA (Messaging Interface and Reliable Architecture) to archive/redirect/filter and act (CEP) upon streaming meta-data collected online. MQ-based service messaging bus provided STAR with stable and scalable solution, and enabled near-real-time view of the experimental status for all collaborators.

– Proof of principle: EPICS Alarm Handler UI was replaced by a web interface relying on our recently developed EPICS<->MQTT bridge approach.

– STAR Online service integration is now greatly improved for DAQ and RTS subsystems, as our Integrated processing of the alarms produced by various STAR subsystems is completed.

MIRA is a prime candidate for a general-purpose service management and coordination of real-time STAR data stream processing – architecture may serve as a blueprint for future efforts (like anticipated Electron-Ion Collider)

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