

# Customized COTS: An Architecture Overview

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The need for different diagnostic and control applications keep changing even within the same experiment as the project evolves. Going for a complete custom solution while meeting the specifications is not conducive to rapid turn around for changing needs or long-term maintainability. Commercial systems on the other hand while readily available may not fit the exact needs of the project at hand. Customized COTS, with a truly user programmable FPGA as its core give the researchers and engineers the best of both custom and commercial worlds. This presentation presents an architecture with an user programmable FPGA at its core. This FPGA can now be customized for different application needs.

Another aspect that gets largely over-looked are the benefits of bringing a custom product to the mass-market. Important aspects such as maintaining a platform after inception, accounting for testing and certification including special needs such as radiation testing and life-cycle management will also be discussed.

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