



# ***ESL ADOPTION: WINNING STRATEGIES FOR THE ORGANIZATION***

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# ***ESL at Emulex***

- ◆ **Architecture Viability**
  - Does the architecture meet requirements?
  - Will the architecture work?
- ◆ **Architecture Exploration**
  - Resource sizing
  - Design decisions
- ◆ **Virtual Boards & Systems**
  - Models for day to day firmware & software development
  - Regression runs over multiple configurations

# Challenges

- ◆ **One Model Does Not Fit All Applications**
  - Detailed data flow model for architecture analysis
  - Register and memory accurate model for firmware development – Virtual Prototypes
    - *Requires extremely high speed model execution*
    - *Order of events as firmware sees them is important rather than time*
- ◆ **Virtual Prototypes, Boards & Systems**
  - EDA companies don't "get it"
- ◆ **RTL – Model Validation**
  - Validate RTL implements system functions correctly
  - Verify accuracy of the system model
  - RTL Conversion to SystemC

# ***Impact on Organization***

- ◆ **Models provide hard data for making architecture and implementation decisions**
- ◆ **Requires model developers to have strong hardware and strong software backgrounds**
- ◆ **Requires individuals with strong communication skills to work with ASIC, firmware, architecture and marketing groups**
- ◆ **Formal mechanism for tracking issues and requirements identified by the system model is useful**