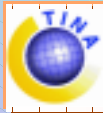




Carrier Class DPE

Requirements



Why DPE?

- Telecom Applications Typically
 - have complex structures,
 - use multiple language implementations,
 - depends on multiple vendors,
 - deployed on multiple platforms,
 - utilize multiple software/network protocols,
 - integrates with legacy systems,
 - require 99.999% (≤ 6 min per year) unscheduled downtime.

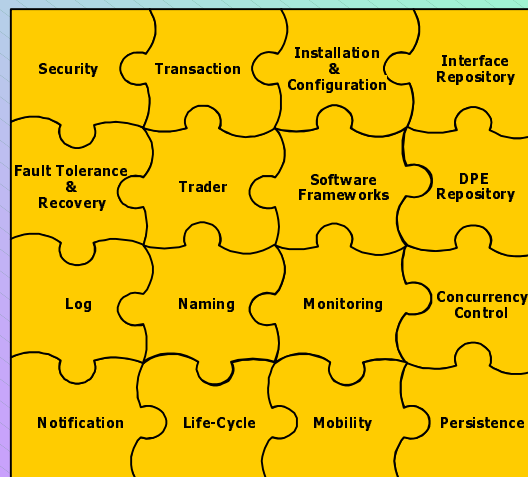


Good Architecture

- Resilient
- Flexible
- Simple
- Approachable
- Clear separation of concerns
- Balanced distribution of responsibilities
- Balances economic and technology constraints



Pieces of the Mosaic





What is needed?



Progress

- Advances in materials
- Advances in analysis
- Advances in technology

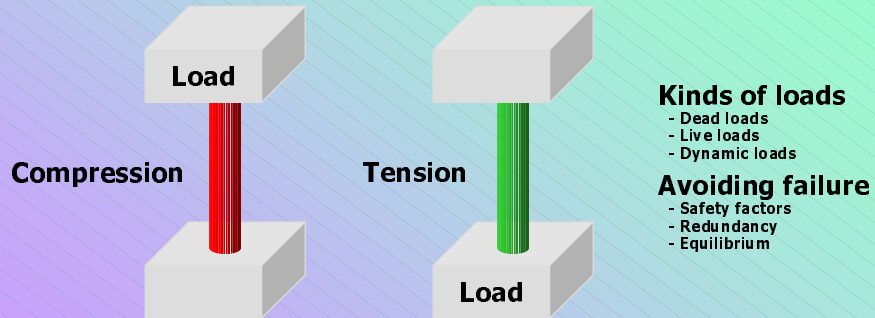


What is Needed?

- Structured Reliability
 - Fault Tolerance
 - Security
 - Scalability
 - Real-time
 - Control of QoS
 - Predictable Performance
- Operational Management
 - Scalable, flexible and robust life-cycle management of a dynamic environment



Success & Failure



Kinds of loads

- Dead loads
- Live loads
- Dynamic loads

Avoiding failure

- Safety factors
- Redundancy
- Equilibrium

Any time you depart from established practice, make ten times the effort, ten times the investigation. Especially on a very large project.

- LeMessurier

Booch