FORTNA

Thought Leadership Series

FORTNA Solution Design Guiding Principles

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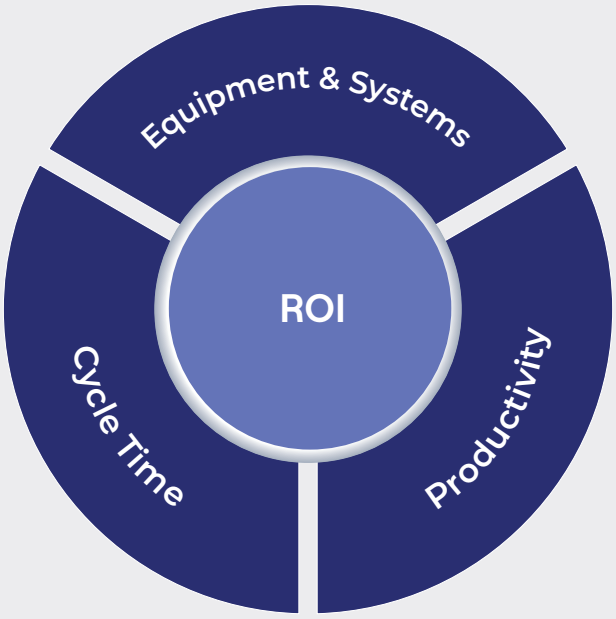
The FORTNA Solution Design Guiding Principles are a collection of over-arching, strategic principles that codify our approach to design. FORTNA takes a data-driven, holistic approach to design a solution that supports your business requirements. Our proprietary tools, processes and algorithms allow us to quickly extrapolate meaningful insights from the data and begin developing solution concepts that balance cost and service without bias towards a particular supplier or technology. Our approach includes a view toward software and implementation so that the solution delivers the intended business result.



Solution Design Guiding Principles

FORTNA's Solution Architects navigate the design space, realizing there are inherent tradeoffs between productivity, cycle time and equipment & systems – all of which are evaluated through the lens of return on investment and business case.

1. The Clients' interests always come first.
We will always recommend the design that best enables our Clients to meet their financial, strategic, and operational goals.

2. Our designs are based on projecting current state data to meet or exceed future business and operational requirements.
Our design process is governed by meeting or exceeding future business and operational requirements. Quantifiable future requirements are established in the context of extensive analysis of data representing current operations.

3. We design from the ground up – we do not use the "Rolodex" method of design.
In every project we establish design requirements and then apply the FORTNA design methodology to arrive at the solution that meets or exceeds every requirement, including requirements related to ROI/business case. Each design is unique to every client. Such an approach minimizes risk in that key tipping or feasibility points are not missed and the result is an optimal design that is implementable.

4. We will determine the best methodology for an operation before considering technology.
We use technology to refine our solution (i.e., to make it "better" in terms of productivity, cycle time, cost, etc.), rather than start with a particular technology in mind. By doing so, we ensure that we view technology as an enabler rather than an end in and of itself. We understand that technology is always evolving, and this method keeps us from making assumptions that are no longer applicable.

> FORTNA takes a data-driven, holistic approach to design a solution that supports your business requirements."

5. Every aspect of an operation is tied back to a design requirement – no fluff in our designs.
Tasks that require associate labor and/ or technology should always be tied back to an operational requirement. If an operational process does not meet a design requirement or add value to the task, the added steps are waste. This prevents operations from becoming overly complex with added tasks that are not true requirements.

6. An operation should not be more complex than needed and should conform to standard software and operational processes where possible.
Increasing complexity inherently increases the cost (in the holistic sense of that word) of an operation. Therefore, complexity should only be introduced when there is a justifiable, identifiable benefit.

7. Remain agnostic to the specific technology provider as long as possible through the design process.
Staying agnostic to specific suppliers in the design process allows us to facilitate a supplier selection process which results in the best, holistic evaluation of a supplier's approach and technology. A stand-in or composite/ representative supplier can be used in analysis with this approach.

8. Consider safety and ergonomics, including the impact of worker congestion.
Workers interact with the operation at many points, and it is important to ensure the work can be conducted safely. This includes the long-term impact on the worker, which is minimized through the consideration of operational ergonomics and physical distancing of workers.

9. Business case analyses need to be intellectually honest: we must compare automated solutions with incremental improvements (i.e., improved baselines).
A solution should be compared with its closest alternative from a capital investment perspective. The use of marginal analysis, both on the investment side as well as the benefits side, ensures that the business case can stand up to inquiries from outside parties.

10. We lead Clients to the recommended solution by communicating clearly and succinctly, with a focus on explaining "the why".
We view our role as educator – both in terms of the solution we develop as well as the solution process and why we believe the solution is the one that best meets or exceeds the design requirements. We expect the Client team to eventually "own" the solution and believe they cannot do so unless they truly understand it. That is why we put a great deal of thought into how we communicate and focus on explaining "the why."

FORTNA

FORTNA CAN HELP

FORTNA stands behind our designs, ensuring that business case results are achieved. We can do so because we follow these Guiding Principles, which enables FORTNA to create a unique, data-driven, technology-agnostic design that is implementable for each Client.

Contact us today at **www.FORTNA.com**