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# Almost Chaos. Thriving Amid Complexity and Uncertainty

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The word “chaos” sends chills up the spine of most communication services business and operational leaders. However, wherever one looks in today’s market and for the foreseeable future, there is nothing but rapid change, increased complexity, and unpredictability on the horizon.

The current business landscape looks chaotic. Even the most agile individuals and organizations, however, cannot effectively operate and certainly cannot scale amid chaos. Processes and operational structures are needed, but traditional business processes and project management strategies are not well-suited to the current climate.



Many organizations assume that project and operational problems are due to a lack of skill and knowledge. Consequently, the most common approaches to this are training, education, and hiring experienced project managers and team leaders. The rationale is that greater numbers of intelligent and driven professionals will be capable of juggling the complexity and readjusting whenever unexpected events occur.

While more bodies and increasing skill levels and capabilities are important priorities for any company, they are not a solution. Instead, the project system itself must be better able to absorb and seamlessly respond to uncertainty, sudden changes, and complexity.

To create systems nimble enough to respond to disruption and unpredictability, though, the challenge at hand must be better understood.

## Inefficient projects vs. ineffective processes

Most organizations create projects led by project managers to bring order and structure to work. The Project Management Institute (PMI) defines a project as a temporary endeavor to create a unique product, service, or result. So, if the effort is a one-time occurrence, never to be repeated, it is a project according to this definition.

But most communications services companies have “projects” that are not temporary, one-off affairs. Rather they repeat, like the procedures for building out a new fiber network or implementing new products and services at a customer site. These projects aren’t actual projects at all; they are processes that are managed as projects.

What’s more, some level of inefficiency is allowed in projects because they are unique undertakings that will not be repeated. After all, the project is not recurring, so any introduced inefficiencies should be notated, and learnings applied to the next project.

However, inefficiencies in operational business projects that are actually repeated processes can be wildly detrimental to the health and profitability of an organization, not to mention its ability to effectively respond when confronted with the unexpected.

## Complicated or complex?

Complexity is a commonly used word, but surprisingly few people understand the difference between “complex” and “complicated.”

A complexity worldview sees organizations and the world as interconnected forms and patterns that have been shaped by history and context. A complexity perspective acknowledges limits to certainty, emphasizes that things are in a continual process of “becoming,” and that there is potential for the unexpected to be rich with opportunity.

A system can be complicated but not necessarily complex. A complicated system is one in which the components can be separated and dealt with systematically and logically based on rules and algorithms. A complicated system may be hard to follow and may have many steps, but there’s a fixed order a team of experts can manage.

A mechanical view is a more traditional way of looking at a business. This line of thinking suggests that companies and the world work like a machine on a predetermined path. People who subscribe to this school of thought believe that a business can be understood and optimized by breaking it into constituent parts and managing the pieces in a piecemeal fashion.

On the other hand, a complex system is one in which you cannot get a firm handle on the parts, and there are no rules, algorithms, or natural laws. Complex things have no such degree of order, control, or predictability. A complex system is much more challenging—and different—than the sum of its parts because its parts interact in unpredictable ways.

Managing people is a complex challenge. So is integrating two merging companies or figuring out how the market will react to a new product or strategy. Maybe the team will get lucky and figure it out once, but whatever they did this time won't generate the same result next time.

## Bringing order to chaos

Organizations pay for chaos in delayed time-to-market, slow response to customer needs, and decreased productivity. While tweaking the current project management paradigm may provide some minimal gains, fundamental change requires a mindset shift. Automation is the typical go-to solution for improving project and process efficiency. Yet organizations must accept that while complicated work can be automated, complex work cannot. Most organizations' value-creating work involves aspects that are complicated as well as complex. Simultaneously managing complication and complexity is the key to staying one step ahead of chaos.

In other words, organizations must be able to rapidly create and recreate structure when confronted with disruptions and new market conditions.

## Remember Legos? Modularity is the key to resiliency.

Well-designed complex systems emerge out of simple systems that work well. Building small, discrete pieces or process steps allows teams to experiment until they design elements that work. These highly effective pieces (specifically, steps and processes) are linked together.

Ultimately, resilient complex systems are born out of linking simple systems that work well and can operate independently, but interact with their environment as a single unit, step, or process.

Modules are standalone processes designed to do one thing well. A module is a self-contained collection of functionality that delivers a predetermined result, like "customer order" or "contract approval." Modules or processes are typically made up of multiple tasks performed by numerous people, usually in a predefined sequence, and can include any number of other modules.

Modularity facilitates the rapid reorganization of processes as organizations confront the unexpected. Just as a Lego creation can quickly be dismantled and the same pieces used to build something entirely new, individual process modules can be changed as needed without impacting an entire system or organization. Then, modules can be reconfigured to address disruptions or capitalize on new market opportunities.

## Benefits of modularization

### Encourages team ownership

The people assigned to tasks in a module are collectively responsible as a team for the successful completion of the module—enabling team rather than individual ownership.

### **Facilitates experimentation**

Experimentation is a key to mastering complexity. When modules are autonomous, teams can try new things without worrying about disrupting the activities of other units.

### **Establishes a standard approach**

Creating a library of process fragments or sub-processes that can be linked together helps avoid inconsistencies, errors, and ambiguities, thus ensuring that the project plan follows process standards.

### **Enables faster decision-making and a competitive edge**

Modular design reduces interdependency by enabling autonomous modules focusing on clear outcomes. The ability to move faster than competitors provides a clear market advantage.

### **Increases flexibility**

Sufficient modularization increases flexibility by delaying decision-making until the last responsible moment, keeping options open for as long as possible.

### **Facilitates innovation**

Processes become adaptable to changes in the market environment, giving team members the ability to apply their knowledge and not simply follow the rules.

## **Applying modularity in the communications services industry**

Uniti Fiber, a telecommunications real estate investment trust (REIT) focused on the construction and acquisition of mission critical communications infrastructure, manages more than 123,000 route miles of fiber.

Significant interdependencies are at the heart of every new network and customer order. When delivering multiple services across multiple locations, steps must be executed in a specified order in the quickest amount of time to keep the project running smoothly and align with customers' needs.

To manage increasing complexity, Uniti created a Multi-Order Tool (MOT), consisting of eight commonly used objects (or modules) linked together to track the life of an entire project. MOT objects are combined in a building block manner to create a collection of well-defined and repeatable processes that can be assembled to meet the needs of a specific project. Additionally, each object can be independently adjusted to respond to the changing market or changes within the Uniti organization itself.

## Rising to new challenges one piece at a time

While the practices of forecasting and making market predictions are unlikely to go away anytime soon, these disciplines are not effective tools for building operational stability. Communications services companies that prepare for a specific future will be blindsided by events that unfold differently or expend massive amounts of resources preparing for many different futures.

“Be Prepared,” the Boy Scouts’ motto still rings true today; however, effective preparation requires dancing and thriving on the edge of chaos. The ability to achieve the agility needed to respond to changing conditions, while avoiding a state of chaos, requires designing and optimizing the right pieces so that new processes can be built and rebuilt at a moment’s notice for a new day.