

The Agile Enterprise Framework

Transforming your Business to Compete in the Today's Business Environment



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Table of Contents

EXECUTIVE SUMMARY	1
INTRODUCTION	2
AN ENTERPRISE MODEL FOR TODAY’S BUSINESS ENVIRONMENT	3
BENEFITS OF THE AGILE ENTERPRISE MODEL	5
CURRENT BEST PRACTICE EXAMPLES.....	6
BUILDING THE AGILE ENTERPRISE MODEL	7
<i>Step 1. Clarify and define the company’s strategic focus</i>	7
<i>Step 2. Build the new enterprise model and change management plan</i>	8
<i>Step 3. Define and develop the information technology systems for an “information supply chain”</i>	9
<i>Step 4. Make constant course corrections to master change</i>	11
CONCLUSION.....	12
REFERENCES	13
ABOUT THE AUTHOR	14

Executive Summary

Change is happening so fast in both technology and business areas that the world seems to be in constant chaos. These waves of change promise to transform virtually all industries and organizations even more in the coming years. Every day, executives around the world echo the concerns they have about this radical transformation of business and the role of technology in creating new competitive advantage:

- How do I quickly establish our position in this changing environment?
- How can we manage the risk of change and invest intelligently and prudently in the future?
- How can we take advantage of the opportunities that technology promises without mortgaging our future?

Executives must invest intelligently and prudently in the future. With technology more intertwined with executing the corporation's overall business strategy than ever before, smart executives recognize that sense of deliberateness is needed to ensure success. The risk associated with change cannot be eliminated, but it most certainly can be managed.

The enterprise model required to survive in this new environment of the Internet and network economies is characterized by flexibility, distributed decision making, multifunctional teams and organizational learning. This agile enterprise model, enabled through a technology infrastructure, is realized in the knowledge-based, networked, intelligent, flexible (KNIFE) enterprise.

The steps in developing this enterprise model are:

1. Clarify and define the company's strategic focus
2. Build the new enterprise model and change management plan
3. Define and develop the information technology systems for an "information supply chain"
4. Make constant course corrections to master change

This agile enterprise model and its underlying information technology infrastructure provides the following benefits to the company, its knowledge workers and its customers:

- Aligns people, processes, and technology to exchange value and interact with customers and business partners
- Helps the organization to focus outward on opportunities, changes and threats
- Supports a virtual team structure, collaborative working and flexible organizations
- Allows the organization to interact with customers over the lifetime of the relationship

Introduction

Change is happening so fast in both technology and business areas that the world seems to be in constant chaos. Business mega-trends are impacting the workplace, value chains, the market place, customer expectations and organizational structures. In a large part, these business mega-trends are brought about by rapid technological change in computers and communications.



These technology mega-trends are unleashing waves of “creative destruction” across the economy and promise to transform virtually all industries and organizations. Entire industries are shifting in form, function and importance. The result is disruption of the status quo on an unprecedented scale. Companies must either adapt to these events and their technology catalysts, or suffer the consequences of having gotten in the way.

These business and technology mega-trends are changing the way we do business and making our traditional methods of management and organization obsolete. They have created a need to shift from a enterprise model built around a central command and control organization to a enterprise model built with distributed command and control, coupled with central communication and coordination, enabled by an information technology infrastructure.. Today, more than ever, a distributed approach with corporate structures of flexible forms, such as teams, is gaining favor as the preferred method of doing business.

In his book, *General Systems Theory*, Ludwig Von Bertalanffy describes the dynamics that drive systems to efficiency and stability, and predicts the result of these forces. Those organizations that successfully decentralize decision making and grow into self-regulating, efficient subsystems will become more stable and capable of managing today’s increasingly complex environment than those that struggle to maintain a central decision making model. The corporation that can compete best in this new era has an architecture quite different from the corporation of the 1970s and 1980s. Ordered hierarchies are obsolete; new organizational structures must take their place.¹

There is a growing realization by business visionaries and consulting “think tanks” that this organizational shift needs to be embraced in order to survive in the future. James Martin explains in his book, *Cybercorp*, the concept of the “cybercorp” as being the wave of the future - an agile, virtual, global cybernetic corporation. He describes the “cybercorp” as an organization characterized by “constant monitoring, immediate reaction, continuous change, global nature, extreme virtualness, customer intimacy, knowledge obsession, endless learning, ruthless simplification, and innovative technology.”² Tom Peter’s book, *Liberation Management*, echos this when he emphasized that “enhancing communication and collaboration through technology is a sound investment in enabling the distributed team business structure.”³

A visionary company, such as a Disney or Wal-Mart, is distinguished by its outstanding organizational architecture, as reported in *Built to Last*, the book by James Collins. Collins

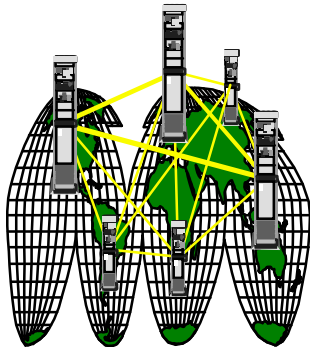
describes how the corporate structure has changed to be one of more flexible forms of teams and networks in these visionary companies.⁴

In a recent *Fortune* magazine article, Tom Stewart, editor, identified some of the symptoms of not adopting the best organizational structure to respond to these mega-trend forces:

- You repeat mistakes
- Work gets duplicated
- Customer relations are strained
- Good ideas don't get shared
- You have to compete on price
- You can't keep up with market leaders
- You're dependent on key individuals
- You're slow to launch new products
- You don't know how to price for service⁵

Nicolas Negroponte perhaps summed it up best in his comment to a company's lack of response to mega-trends, "if you are comfortable, all you are doing is making yourself a target."

An Enterprise Model for Today's Business Environment



This transformation of the business environment by technology such as the Internet has resulted in a radical transformation of business. The enterprise model required to survive in this new environment of the Internet and network economies is characterized by flexibility, distributed decision making, multifunctional teams and organizational learning. This agile enterprise model, enabled through technology, is realized in the knowledge-based, networked, intelligent, flexible (KNIFE) enterprise.

Knowledge-based

Knowledge is the organization's ability to create new responses to new circumstances, based on its ability to understand the causes of current circumstances, and to use its insight and reason in generating the most effective response to them. Knowledge-based refers to finding knowledge, moving it around, keeping it refreshed and up to date, sharing it and using it. As the business environment changes more and more rapidly, so an organization's reliance on its knowledge increases. Knowledge management supports this decision making, which emphasizes the re-use of previous experience and practices, with modification to meet present circumstances.

Knowledge can not be preserved for very long without losing its inherent value – timelessness. Replacing knowledge is much more important and more difficult than its

simple capture. Many organizations are realizing that their efforts to capture knowledge is nothing more than a casual accumulation of information. It is also crucial to convey the processes and business rules that govern the use of the knowledge, in order for the information to be transferable to the people in the organization. Knowledge transfer always means transferring the implicit nature of not only “what” but also “how” and “why” something is to be done.

A knowledge-based enterprise therefore, is one where value is generated through the creation, circulation and exploitation of knowledge, which is the organization’s accumulated intellectual capital.

Intelligent

An organization only learns when an individual is able to impart the understanding to or change the behavior of the organization as a whole. Knowledge and learning are iterative. When the potential learner confronts an unknown situation, there are three ways to learn – he can search the data base to see if the situation has been encountered before, he can find several related but not exact circumstances and derive an answer, or he can generate new knowledge by creating action and noting the response.

The only sustainable competitive differentiation is innovation, and the raw material for innovation is knowledge. The result is the ability to operate and learn faster as a collective group as well as respond rapidly and individually to customer needs and business changes. A corporate instinct to respond to changing market opportunities, customer and competition, creates ability to respond quickly in the right way.

An intelligent enterprise therefore, is an adaptive and responsive organization with the ability to respond quickly and accurately to market opportunities, customers and competition.

Networked

What knowledge workers need is timely, contextual, and relevant information in an integrated, interactive manner. This information needs to be decentralized, so that its entire force can be drawn upon by nimble teams tasked with meeting a particular challenge.

A networked enterprise provides access to contextual and relevant information by all distributed organization members. It allows the maximization of efforts of teams and departments that may have responsibilities spread across different geographical locations and provides access to up-to-date information, consolidated from multiple data sources, capturing information and adding it into the appropriate knowledge bases.

A networked enterprise therefore, facilitates the acquisition, sharing, usage and flow of information across the enterprise with everyone linked in a dynamic, real-time information flow.

Flexible

Flexibility is having the capability and processes to continue to be competitive in conditions of unpredictable change. Flexibility is accomplished by having readily re-configurable operations, processes and workforce. By consciously organizing for rapid decision making, teamwork, and entrepreneurial environments, an organization can position itself to quickly adapt and adjust to the changing business environment .

Flexibility is accomplished through a multi-layered organizational structure that changes and switches depending upon the situations and needs - both centralized and decentralized, hierarchical and collegial, rule-bound and learning-centered. It is partnering with other enterprises as a strategy of choice, not as a last resort, when the resources are not available in the enterprise.

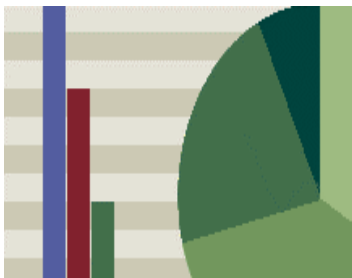
Flexibility is nothing less than an enterprise-wide response to an increasingly competitive and changing business environment by establishing the processes to anticipate and embrace change.

The essence of this enterprise model is all about business process improvement and cultural change through improving workflow, information access, collaboration, and knowledge management. It encourages distributed decision making, modular organizations, open communication with business partners and customers, and application of employee knowledge. Ultimately, it allows an organization to more easily deploy flexible business processes, make continuous process improvement and create new work environments to be more competitive.

To make this model effective, however, requires the proper information technology infrastructure. This infrastructure is discussed in the “Building the Agile Enterprise model” section of this white paper.

Benefits of the Agile Enterprise model

The agile enterprise model uses improved business processes to focus on the full customer life cycle, with a blending of technology, people and process into the total solution. This enterprise model provides the following benefits to the company, its knowledge workers and its customers:



- Aligns people, processes, and technology to exchange value and interact with customers and business partners
- Helps the organization to focus outward on opportunities, changes and threats
- Supports a virtual team structure, collaborative working and flexible organizations
- Allows all organization individuals to interact with customers over the lifetime of the relationship

Current Best Practice Examples

Cisco Systems is perhaps the best example of this agile enterprise model. In a recent *Business Week* article, CEO John Chambers described Cisco's strategy as:



- Change, not stability
- Interdependencies/partnerships/alliances, not self-sufficiency
- Technology, not bricks and mortar
- Focus on the customer, not internal bureaucracy
- Emphasis on the virtual corporation, not a structured company⁶

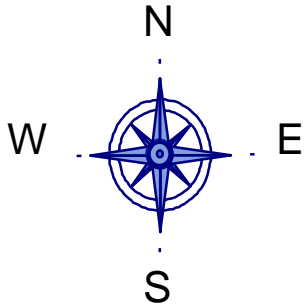
Cisco has truly mastered the concept of an agile organization, assisted by a substantial technology investment. Even with global operations and contract manufacturing facilities, the company has instant visibility into products anywhere in the manufacturing chain. Cisco is even capable of a one hour close of its financial books at any point in time.

In a *Harvard Business Review* article, Managing Director John Browne of then British Petroleum, describes building the virtual team network to support a transformation of the company. Believing that smaller, semiautonomous businesses could work more efficiently and creatively, Browne oversaw the development of what he described as “a federations of assets”, each of which would have the freedom to develop processes and solutions to meet its own local needs. The goal was to change the way people work together, to make learning and knowledge-sharing intentional and continuous. Browne used technology such as videoconferencing, collaboration tools and knowledge management engines to equip those teams with the skills and capability to adapt and learn.⁷

Even the US Marines have adapted this enterprise model. An *Inc.* magazine article described the Marines commitment to decentralized management and bottom-up thinking which has evolved gradually over the Corps' more than 200-year history. The new Corps can make decisions in the face of incomplete information, learn to recognize patterns to apply to entirely new situations, and practices failure tolerance. Using information technology, they have been able to push the ability and authority for decision making down to the Marines who are on the spot.⁸

Forward-looking business leaders have recognized that the development of the business strategy and new enterprise model is not meant to be left only to the top executives. Instead, the new way of business demands that a company constantly probe its market with new technology-related ideas, and be ready to move as soon as one proves promising. That approach requires that the company makes strategy a constant part of daily operations and means that just about everyone, not just specialists, must be part of the process. Cisco Systems, in fact, supports this view as they actually let the customer help develop their annual business strategy. The Internet paradigm of “launch and learn” vs. the traditional “learn and launch” model is relevant here as well. By taking an experimental approach and making strategy a part of the daily life of the business, the true concept of the agile enterprise model is achieved.

Building the Agile Enterprise Model



It's true that change often starts at the top. But for change to really take hold, and be sustainable long term, a company needs buy-in from the boardroom all the way to the backroom. Tom Davenport, noted knowledge management visionary, states that “the willingness of individuals to use a specified information format is directly proportional to how much they have participated in defining it or trust others who did.”⁹ The approach to building the agile organization must then be one of collaboration and trust between the executives and the organization. Trust is needed to foster the community necessary to change the structure of the organization.

However, it also must be kept in mind that it is sometimes easier to start a new organization rather than change an old one.

The steps in developing the agile organization are:

1. Clarify and define the company's strategic focus
2. Build the new enterprise model and change management plan
3. Define and develop the information technology systems for an “information supply chain”
4. Make constant course corrections to master change

Step 1. Clarify and define the company's strategic focus

This first step will be to determine the specific market segments, the business partners and the customers that will form the basis for the company's new direction. In this step, the company thinking need to shift from a product focus to customer centric focus. Areas to address include:

- Determine those specific products and services (total solutions) that will provide the most value to customers and are valued more highly than competitors
- Determine what the company does better than anyone else for a certain segment of customers
- Determine what companies could be partners because of greater economies of scale, a broader base of shared expertise or better customer relations
- Determine which customers with whom partnering would build a more dominant position in the market place
- Determine which business partners need to have close, long term relationships to produce a quality product or service at a low cost
- Determine the impact of the strategic direction on the current business processes and the integration needed with current business processes

What you are trying to do is to make your business a necessary extension of your vendor and customer's businesses. Companies that excel in today's business environment will become so electronically intertwined with their customers and business partners, that it is difficult to tell

where one company stops and the other begins. Focus on your customer - make it easy for them to do business with you and help them do their job better.

And this is not a static model. To prosper in the long run, a company must be as good at evolving as its market, or better. More specifically, it must be both a strong competitor in the current regime *and* a smart evolver, able either to innovate ahead of the market or to adapt with it. Traditional strategy tends to emphasize a focused single line of attack – a clear statement of where, how, and when to compete. In today’s business environment, a focused strategy to dominate a niche is necessary for day-to-day survival, but not sufficient in the long run. Given an uncertain environment, strategies must also be *robust*- that is, able to perform well in a variety of possible future environments.

The companies that continue to learn the fastest what the customer needs and implements the technology links fastest, will prevail.

Step 2. Build the new enterprise model and change management plan

The new enterprise model needs to be built around a team structure and organized around a customer focus, as shown in figure 1. The core processes of the business need to be redesigned from the outside in, starting with the customer’s perspective. The focus shifts from the individual who was accountable to the manger, to multi-disciplinary teams that function as service units. It is a model designed to encourage flexibility, innovation, entrepreneurship and responsiveness. The role of managers is changing from a director to a facilitator, coach, mentor, advisor and indeed, a peer, in the exchange of knowledge and experience.

The agile model can compared to a jazz band. The players must be able to perform as a closely coordinated ensemble, but each must also be prepared to stand up, present a solo, and improvise.

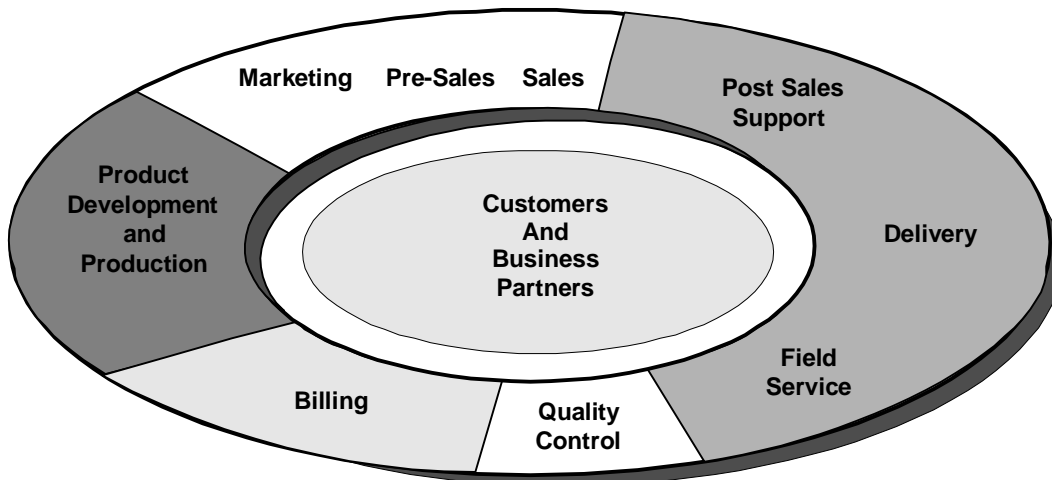


Figure 1. Agile enterprise model

Once the team structures are defined, change management elements are needed to help the organization embrace the concept. Many of the change management elements can be modeled from the open book management concepts as described by John Case in his book, *The Open-Book Experience*. The goal of open-book management is to “boost a company’s business performance by creating an environment where everyone sees and understands the key numbers of the business, builds a system to provide for joint accountability of each person’s part in the company’s performance, and gives people a stake in the success of the business.”¹⁰ The profile of the individuals involved as change agents is critical. The proper knowledge, skills, and attitudes need to be defined, identified and if necessary, nurtured, to provide the people who will carry the change process through.

Areas to address in building the new model include:

- Create effective small teams; for example individuals who have the cross-functional skills to meet the need of a particular customer segment.
- Transfer decision-making responsibility to the front lines, where the customers are, not to the back-office or central management
- Determine people, skills, information systems, training systems, and equipment required to support each team.
- Create specialist expertise to share across front line teams to achieve economies of scale
- Eliminate, automate, simplify, outsource, or move to a central support area all those functions that are bureaucratic
- Define measures to make each team accountable, such as quantitative and qualitative accountability for customer satisfaction, measures for productivity, responsibility for bottom line performance
- Consider building a separate, new organization rather than changing an existing one

Step 3. Define and develop the information technology systems for an “information supply chain”

Technology has been a major catalyst for the business mega-trends discussed in the introduction. Technology can also be used to solve the problems that technology has created. How do we use information technology systems to support this new organizational model and adapt to the changes occurring in the business environment? Technology is used to support the business processes by:

- Giving instant access to critical information
- Consolidating enterprise operations data and organizing and refining it into a context that reflects the business processes

We need to design technology systems within an organization that enable the sharing and communication between people of what they know and learn, and the capability to interact seamlessly with customers and business partners. The result will be the capability for coordination, collaboration and use of virtual teams. This will help to get maximum efficiency

from all functions and departments, no matter where they're located, and drive decision making down in the organization, closer to the customer.

The technologies necessary to implement these virtual systems are readily available. However, due the rapid changes in technology and the volatility in the marketplace, a defined "business-driven technology strategy" is recommended to maximize the technology investment. This technology strategy will include the IT implications, IT architecture and new technology components required to support the business strategy including internal requirements and external service providers. The strategy will be driven by and support the business strategic direction and processes identified earlier in steps 1 and 2.

The major technology areas to transform an enterprise to compete in today's business environment include:

- Web technologies – Internet, Intranet, Extranet
- Integrated Web/telephony call centers
- Document management/workflow tools
- Collaboration tools (email, discussion databases, electronic whiteboards, videoconferencing,)
- Intelligent systems (expert systems, case based reasoning tools, neural networks, intelligent agents, search agents)
- Business intelligence/decision support tools
- Application integration servers (Web/database, transaction processing)
- Security and encryption tools
- Enterprise information portals
- Commerce servers
- Electronic bill presentation and payment

The incorporation of technology into the agile enterprise model realizes the information supply chain as shown in the following figure 2. Back office applications, front office systems, business intelligence systems and customer/business partners are all integrated to build the information supply chain. The application integration server integrates legacy application, client/server applications and Web technology through messaging and data integration. The result is the capability for virtual workspaces with employees, virtual value chains with business partners and virtual market spaces with customers.

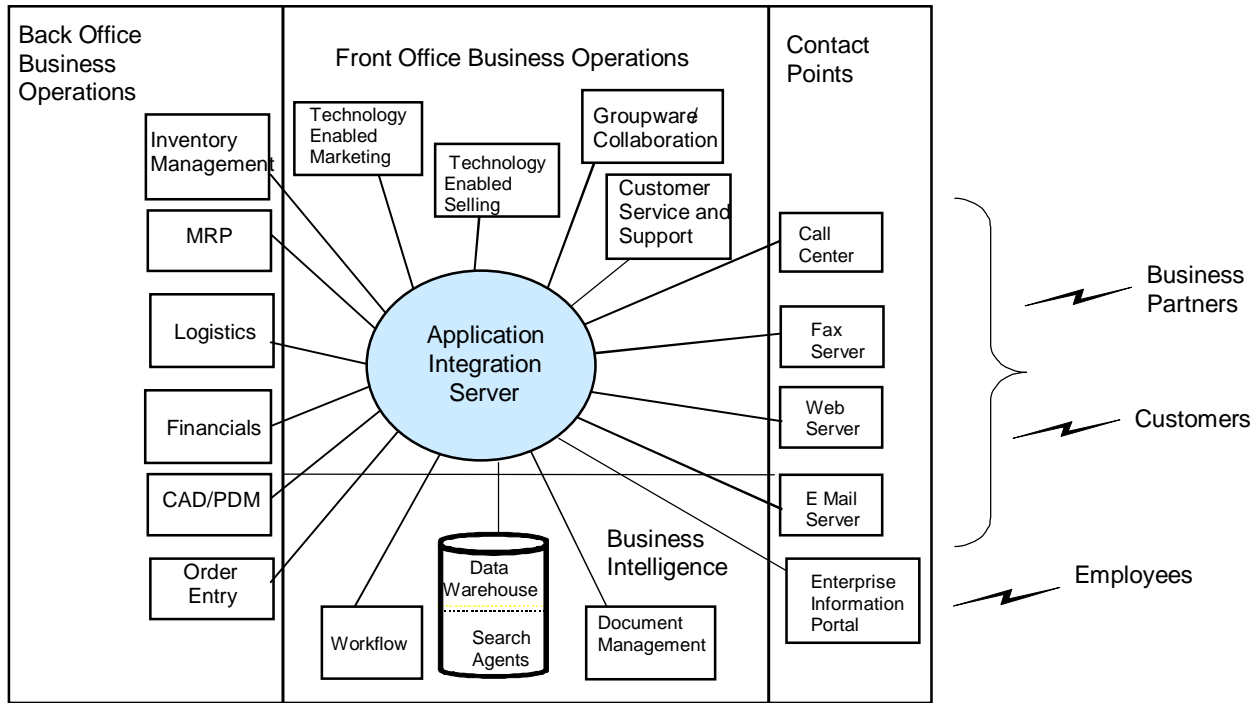


Figure 2. The information supply chain

Step 4. Make constant course corrections to master change

The only way to master change is to be agile, have an entrepreneurial spirit and constantly fine tune. Nimbleness, innovation, and experimentation are all needed to survive in today’s business environment. The last step then is to provide best practices and processes to identify when course corrections are needed as business situations require. It would also include frequent review and update of plans and periodic review of the “pulse” of the organization to ensure the culture is adapting in a healthy environment.

Conclusion

Technology change, especially the Internet, is causing an upheaval that is shaking the very foundations of business. It is imperative that enterprises quickly establish their position in this exciting new world. But a sense of urgency must be tempered with a sense of deliberateness to ensure the success of the new venture. Companies must invest intelligently and prudently in the future. The risk associated with change cannot be eliminated, but it most certainly can be managed. Managing that risk with a level of innovation, coordination and skills will launch an enterprise into the future.



Companies that have adapted to this change have done so through an enterprise model that links everyone with a dynamic, real time, information technology system so that they can learn faster as a collective group, respond rapidly and individually to changes, and focus on the customer. To be able to share and leverage information throughout the organization is to give everyone the capability to increase the velocity of innovation and responsiveness and to make good decisions in support of customers and business partners. Therefore, the agile enterprise model changes people's roles, people's activities, and people's jobs. Ultimately, it transforms an organization to be a success in the ever changing business environment.

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