Capitalizing on Your Business Ecosystems Economy: A Gartner Trend Insight Report

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Analyst(s): Betsy Burton, Marcus Blosch, Yefim Natis, Paolo Malinverno, Saul Brand, Neil Osmond, Kristin Moyer, Ray Valdes

Organizations are increasingly focusing outward on their business ecosystems to fuel innovation. To capitalize on these opportunities, CIOs must develop a proactive strategy for engaging in their business ecosystems, and select the right mix of business and technology to support this strategy.

Opportunities and Challenges

- Digital innovation is driving the move to business ecosystems by increasing interconnection, making it easy and quick to connect everything from organizations to things and providing the intelligence needed to manage the complexity. Business ecosystems exceed the sum of their connections; they are complex, adaptive, learning and self-organizing.
- Business ecosystems offer unprecedented access to capabilities, resources and talent on a global scale. This sets the stage for innovation, creating opportunities to develop new business models, services, products and customer experiences.
- To leverage business ecosystems, organizations will need a paradigm shift in perspective, away from the traditional supply-demand economic perspective to an ecosystem perspective that sees the organization as a participant in a wider, more dynamic network of entities.
- All organizations operate within business ecosystems. However, a Gartner survey of business and IT leaders engaged in their business ecosystems found that only 43% of their organizations have a formal business ecosystem strategy that is actionable.[1]

What You Need to Know

- Every business leader, CIO and IT leader needs to focus on the value they deliver to their business and their impact on their business's ability to compete in its business ecosystems.
- The business ecosystem will be a major source of innovation. By combining the capabilities and resources of ecosystem partners, organizations will be able to create new business models, services and customer experiences, which would be impossible to create alone.

- Critical technology-enabled mechanisms for capitalizing on business ecosystem opportunities and responding to threats include digital platforms, APIs, event processing and programmable economy. Through 2023, the majority of organizations will use a combination of strategies and mechanisms to participate in and lead across their business ecosystems.

Insight From the Analyst

Digital Business Fundamentally Changes How Organizations Operate and Compete in Their Business Ecosystems


Betsy Burton, Vice President Distinguished Analyst


Marcus Blosch, Research Vice President

All organizations are part of business ecosystems made up of a variety of actors, including customers, partners, regulators, competitors and even devices in the Internet of Things. Innovations in technology have driven ever-increasing interconnection at every level. Now, the vast majority of organizations exist in multiple overlapping and interconnected business ecosystems, a trend that will continue to set the stage for innovations and new business models.

In the past, only the largest and most powerful players could significantly impact the direction and evolution of a business ecosystem — by controlling access to information, creating strategic partnerships, changing pricing, introducing products or services, or engaging in mergers and acquisitions. Today, all organizations have access to vast amounts of information and resources and can collaborate with new customers and partners.

So, you may ask: How does this affect you? Isn't the business ecosystem just something the digital business startups care about? Does it really affect more traditional businesses or government organizations? Every organization is exposed to the opportunities and risks of their business ecosystem. Doing nothing is not an option.

Every business leader, CIO and IT leader needs to focus on the value they deliver to their business and their impact on their business's ability to compete in its business ecosystems. This requires a change in perspective from traditional supply-demand and inside-out thinking to seeing the organization as a participant in wider, more dynamic business ecosystems.

The research collection in this report is designed to help CIOs and IT leaders develop a proactive approach for engaging in their business ecosystems and determine the right mix of business and technology solutions needed for success.

We hope you enjoy our insights and recommendations.

Kind regards,

Betsy Burton and Marcus Blosch

Executive Overview

Definitions

In this special report, we refer to several terms clients must understand to leverage this research fully (see Table 1).

Table 1. Definitions

Term	Definition
business ecosystem	A dynamic network of entities (people, businesses and things) interacting with each other to create and exchange sustainable value for participants. A business ecosystem enables various parties to expose their capabilities and leverage the capabilities of others to create new services, products and customer experiences, driving higher levels of business value. Some organizations will create and run powerful ecosystems; others will participate. Three characteristics make business ecosystems particularly unique in the age of digital business: ■ Business ecosystems will become significantly broader and dramatically more complex; the number of actors and interconnections will increase dramatically, as will the volume of information. ■ Business ecosystems are highly fluid and dynamic; they are far more than just a web of connections, and are self-organizing, learning and adaptive. ■ Information is what drives business ecosystems and is set to become the organization's most valued asset as we move from an era of globalization based on things to one of digital globalization.
digital platform	A business-driven framework that allows a community of partners, providers and customers to share and enhance digital processes and capabilities, or to extend them for business benefit. This framework allows for combinations of business models, leadership, talent, delivery and IT infrastructure platforms that power digital business ecosystems.
API economy	A set of business models and channels — based on secure access of functionality and exchange of data to an ecosystem of developers and the users of the app constructs they build — accessed through an application programming interface (API), either within a company or using the internet, with business partners and customers.
event	An event represents a change or measure of a monitored state. Event producers detect events and publish them to a channel such as a message queue or topic, data store, or in-memory object. Zero or more event consumers listen for those events on the channel. Event producers and consumers share nothing other than access to the channel and a common understanding of the event object.
programmable economy	The global-scale aggregation of algorithmic businesses and decentralized autonomous organizations enabled by metacoin platforms — a natively "smart" economic system that supports and/or manages the production and consumption of goods and services, enabling diverse scenarios of exchange of value (monetary and nonmonetary).

Source: Gartner (July 2017)

Business Ecosystems Are the Source of Digital Business Innovation

Business ecosystems have always existed, but the business ecosystems of today have dramatically evolved from the business ecosystems of 10, or even five, years ago (see "Eight Dimensions of Business Ecosystems Enable the Digital Age"). Digital technologies have underpinned and accelerated the importance of business ecosystems. Business ecosystems are fueled by five developments:

1. **Ever-increasing connectivity —** The number and density of connections between people, organizations and things is increasing almost exponentially. All organizations have the ability to connect to a diverse web of customers, partners and even things. Bandwidth and storage are no longer limiting factors.
2. **New insights provided by information and analytics —** Organizations now have the ability to access, process and analyze vast amounts of information. Analytics gives insights into complexity, revealing new patterns and insights, and making it possible to create and manage complex business ecosystems. This trend is making information the organization's most valuable asset.
3. **The need for open innovation —** Complex problems demand a collaborative response, whether that's creating an innovative new service or solving problems such as gridlocked cities. No one organization can do that alone. What's required is a collaboration between actors with complimentary capabilities which when combined create an innovative solution.
4. **New forms of value exchange —** Increasingly, money is becoming just one form of value exchange. Today, reputation, information, services, processes and nonmonetary exchanges are equally valuable parts of a business ecosystem economy.
5. **The rise of the platform business model —** Platform business models have sprung up to leverage the opportunities of the business ecosystem. Some of these are now the most successful and most powerful business models. The platform presents organizations with a practical way to innovate and create new forms of value.

Business ecosystems are already getting broader and having a higher impact on all organizations. According to a 2016 Gartner survey of CIOs, the typical CIO whose organization is participating in a digital ecosystem expects the number of partners to more than double over the next two years (see 2017 CIO Agenda: Global Perspectives on Seizing the Digital Ecosystem Opportunity").

A recent Gartner survey of organizations engaged within their business ecosystems shows the increasing impact of business ecosystems:[1]

- Organizations using a mix of intermediaries will more than double in number over the next three years (from 13% to 28%).
- Organizations actively engaged with a wide range of industries outside their own native industry will nearly triple in number over the next three years (from 13% to 38%).
- Organizations that believe reinvention will be the greatest potential value of engaging with their business ecosystem will triple in number over the next three years (from 7% to 21%).

While many organizations are just getting a handle on integrating their business ecosystem into their formal business strategy and planning effort, these surveys reinforce the need for more direct engagement with business ecosystems.

It is critical for CIOs and IT leaders to recognize the profound impact that digital business is having in shifting the focus to business ecosystems. This awareness will help them make the right investment decisions in people and technology, not just for IT, but for the entire business.

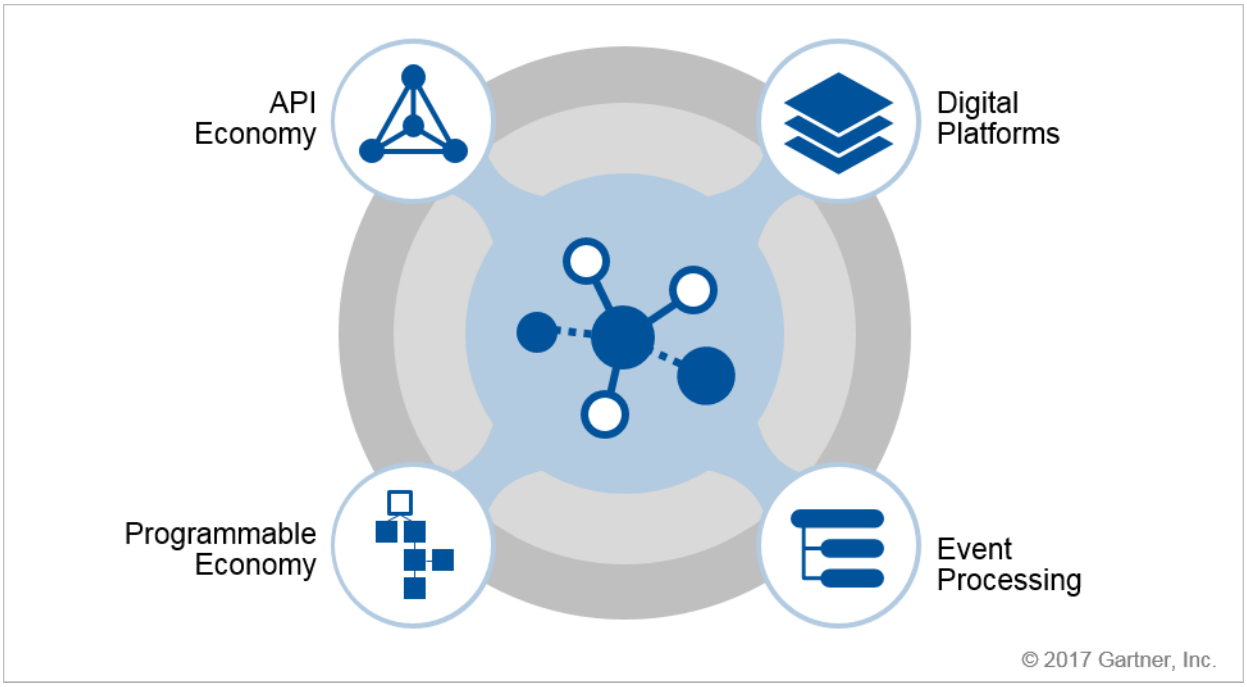
Will You Lead or Follow?

The key question facing you as a CIO or business executive is: How will your business strategy take advantage of the opportunities presented by business ecosystems? Will your organization take a leadership position in defining the direction, collaboration and value exchange of your business ecosystem? Or will your organization follow the lead established by others? Or, will your organization take on a range of strategies — leading in some business ecosystems and following in others?

Whatever the organization's strategy, CIOs and IT leaders must work with business peers to explore and determine how they will use key mechanisms to leverage the business ecosystem and support digital innovation (see Figure 1). Which combination of mechanisms — and the degree to which each mechanism is used — will be different for each organization. But, what's certain is that no organization can afford to ignore them.

Through 2023, the majority of organizations will leverage a combination of strategies and mechanisms to participate in and lead across their business ecosystems.

Figure 1. Key Mechanisms for Capitalizing on Your Business Ecosystems



Source: Gartner (July 2017)

Research Highlights

This special report is designed to explore critical aspect of business ecosystems in the age of digital business. To achieve this, we have created six chapters. The first two chapters provide overview insights into the rise of business ecosystems and their impact on different industries. The next four chapters provide insights into key mechanisms that allow organizations to participate in business ecosystems:

- Digital platforms
- API economy
- Event processing
- Programmable economy

It is critical for CIOs and IT leaders to recognize that these key mechanisms are equally business- and technology-related, and that they are interrelated and interdependent. Determining the right combination and levels of investment to support your organization's ever-evolving business ecosystem strategy is a critical success factor.

Business Ecosystems Overview

Led by: Marcus Blosch and Betsy Burton

Over the coming year, organizations will continue to look for opportunities to innovate their business models using the latest digital technologies. For most, the next wave of innovation will come from turning their attention outward into the business ecosystem of customers, partners, suppliers and other actors — including "things" — to create new services, products and experiences. But, to take advantage of the business ecosystem, organizations must shift their perspective. They must recognize that the business ecosystem is far more than just a web of relationships; it is dynamic, self-organizing and resilient.

To really take advantage of the business ecosystem, organizations must embrace the opportunities and insights that the ecosystem perspective can bring, giving them an edge over those organizations that still see the world as a set of input-output processes. In this chapter of the special report, we provide a collection of research to give readers a deeper insight into the ecosystem perspective.

Related Research

"Eight Dimensions of Business Ecosystems Enable the Digital Age"

"Hype Cycle for Business Ecosystems, 2017"

"Use Five Lessons From Biological Ecosystems in Your Business Ecosystem Strategy"

"Ecosystem Modeling Will Be an Indispensable Tool in Designing Digital Business"

"Build Alliances to Thrive in Business Ecosystems"

"Best Practices for Modeling Business Ecosystems"

"Digital Ecosystems Need Connective and Collective Cross-Industry CIO Leadership"

"2017 CIO Agenda: Global Perspectives on Seizing the Digital Ecosystem Opportunity"

"Gartner's 2016 Hype Cycles Highlight Digital Business Ecosystems"

"Business Ecosystems: A New Partnership Paradigm"

"Leverage the Digital Commerce Technology Ecosystem to Optimize IT Decisions"

Business Ecosystems Industry Impacts

Led by: Neil Osmond and Kristin Moyer

Digital platforms and business ecosystems are creating new models for value creation, delivery and competition in many industries. Government and banking are becoming more open. Healthcare is making it easier to share data between patients, providers and payers. Communications service providers are turning platforms into products and changing their operating models. Manufacturing is turning products into services.

Every industry will be disrupted by digital platforms. CIOs and IT leaders are in a unique position to help their organizations understand the opportunities and threats. For example, does the organization want to run the digital platform, or does it want to participate in other digital platforms by consuming or delivering through them? Organizations that outperform the market do both. Not every organization needs to become the digital platform that dominates its industry, but every organization does need to create a response to the opportunities and threats posed by digital platforms.

Related Research

"Three Digital Platform Styles for Banking CIOs"

"Add Full Life Cycle API Management to Your Digital Government Platform"

"Tesco Develops a Global API Platform to Enhance the Customer Experience and Improve Supply Chain Operations"

"Take These Five Steps to Implement CSP Digital Platforms"

"CIOs Can Play a Pivotal Role in Defining and Harnessing Digital Mesh in the Automotive Industry"

"Market Trends: CSPs Experiment With New Business Models for Digital Services"

"Market Trends: Four CSP Implementations of the Platform Business Model"

Digital Platforms

Led by: Saul Brand

Digital platforms enable interactions across the digital ecosystem. They underpin the creation of new business models by integrating ecosystems of people, businesses and things. They are the means by which organizations will innovate new customer experiences and derive new business models, allowing for rapid experimentation and change, and scaling digital business by growing revenue exponentially. From a technical perspective, digital business platforms are a stable base of IT services — modular and service-oriented — that brings together the organization's own systems and contributions from outsourcers and "as a service" providers. They require an intelligent digital mesh — of people, devices, content and services — to be embedded in everything behind the scenes.

This chapter of the special report looks at how CIOs can help their organizations build a digital business by using four types of platform business models.

Related Research

"Every Organization Needs a Digital Platform Strategy"

"Platform Business Models That Adapt and Disrupt"

"Take These Five Steps to Prepare I&O for Digital Business Platforms"

"Reinventing Applications as Products for the Digital World"

"How to Evaluate Multisided Platform Investments"

"Winning in the Platform Game, Part 3: Build the Platform Business Operating Model"

API Economy

Led by: Paolo Malinverno

The API economy is a set of business models and channels — based on secure access of functionality and exchange of data to an ecosystem of developers and the users of the app constructs they build — accessed through an API, either within a company or on the internet, with business partners and customers. In this chapter, we explore the evolution of the API economy over the past five years, and how organizations leverage APIs to engage with current and potential business ecosystem entities.

The API economy has always been about a platform of APIs to be used by an ecosystem of developers to create new value. For more information, see "The API Economy: Turning Your Business Into a Platform (or Your Platform Into a Business)." This chapter offers advice on how to take the basics of the API economy forward into a more complete notion of ecosystem.

Related Research

"From APIs to Ecosystems: API Economy Best Practices for Building a Digital Platform"

"Top 10 Things CIOs Need to Know About APIs and the API Economy"

"How to Design Microservices for Agile Architecture"

"Use Ongoing Hackathons to Accelerate Digital Transformation"

"Create the Role of API Product Manager as Part of Treating APIs as Products"

"Add Full Life Cycle API Management to Your Digital Government Platform"

"Choosing the Right API Pricing (and Funding) Model"

"The Impact of Event-Driven IT on API Management"

"Innovation Insight for Hybrid Integration Platforms"

"Blockchains and APIs Have a Bright Future Together"

Event Processing

Led by: Yefim Natis

A key distinction of a digital business is that it's event-centric, which means it's always sensing, always ready and always learning. Digital business is driven by business moments, which are derived from contextualized analysis of event streams, drawing on the resources of the business's ecosystem. Sensing the business moments demands continuous real-time situation awareness; responding to business moments depends on context-aware decision making. The real-time situation awareness and context sensing are products of the organization's competence in event processing. Thus, excellence in event processing is essential to the success of a digital business. That's why application leaders guiding a digital transformation initiative must make "event thinking" the technical, organizational and cultural foundation of their strategy.

By 2020, achieving broad competence in event-driven IT will be a top-three priority for the majority of global enterprise CIOs.

In this chapter, we explore how the event-driven "nervous system" of a digital business provides the strategic advantage of faster and more intelligent business responsiveness.

Related Research

"CTO Alert: Master Event-Driven IT to Master Digital Business"

"Champion Event Thinking to Excel at Digital Business"

"Follow the Leaders: Digital Business Innovation Is Event-Driven"

"You're Already Capturing Event-Driven Digital Business Opportunities"

"Articulating the Business Value of Event-Driven Architecture"

"CIO Challenge: Adopt Event-Centric IT for Digital Business Success"

"The Five Levels of Stream Analytics — How Mature Are You?"

"Assessing Event-Driven Middleware Technology for Modern Application Architecture"

"The Impact of Event-Driven IT on API Management"

"Market Guide for Event Stream Processing"

Programmable Economy

Led by: Ray Valdes and David Furlonger

Gartner has articulated a vision of the end result of blockchain-driven disruption that we term "programmable economy" (see "Maverick* Research: In a Post-Bitcoin World, Metacoin Platforms Enable the Programmable Economy"). Metacoin platforms are the key technology foundation of a programmable economy. In the future, a programmable economy will consist of lightweight, distributed autonomous agents with imbued purpose via embedded rules and business logic. Agents will negotiate with each other, negotiate self-enforcing contracts, and even construct layers on top of the metacoin platform that can provide services to other agents (in other words, a platform upon a platform). These interactions will enable new markets, new sets of users (both people and automata) and new forms of value exchange.

In this chapter, we highlight the evolution of a programmable economy, in which value is exchanged peer-to-peer without central authority, and new exchange mechanisms are created by any participant.

Related Research

"Practical Blockchain: A Gartner Trend Insight Report"

"The Disruptive Potential of Blockchain Technology"

"Blockchains and APIs Have a Bright Future Together"

"Cool Vendors in Blockchain Platforms"

Related Priorities

Table 1. Related Priorities

Priority	Focus
Driving Business Transformation Through Technology Innovation	As organizations continue to invest in digital business transformation, enterprise architecture (EA) will be the "tip of their business strategic spear" to understand and implement their strategies.
CIO Leadership in Innovation and Strategic Business Change	In the digital era, the CIO serves as a business leader and an IT leader. This initiative focuses on the first job, showing how the CIO can contribute to the development of an enterprisewide strategy.
Building and Expanding a Digital Business	Digital business is the creation of new business designs by blurring the digital and physical worlds. Digital business involves the interaction of people, businesses and intelligent "things."

Source: Gartner

Related Resources

Webinars

Leadership Vision for 2018: Enterprise Architecture and Technology Innovation Leader

The CEO Perspective 2017: How CIOs Should Respond

Three Stages of Platform Planning: Modernize, Innovate, Reinvent

The 2017 CIO Agenda: Seize the Digital Ecosystem Opportunity

Articles

Ecosystems Drive Digital Growth

Adopt Event-Centric IT for Digital Business Success

10 Steps to the API Economy

Evidence

[1] This Gartner survey was conducted online and by phone during March and April 2017 with 680 IT and business leaders who met these criteria:

- At organizations with over $500 million in annual revenue (USD)
- In the North America, Western Europe, Latin America and Asia/Pacific regions

- Personally knowledgeable about their organization's "business ecosystems" — the connections to the organization's network of customers, partners and suppliers
- Responsible and/or involved in defining or executing business strategy
- Personally knowledgeable about the business strategies in place for considering or adopting new or emerging technologies

GARTNER HEADQUARTERS

Corporate Headquarters
56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Regional Headquarters
AUSTRALIA
BRAZIL
JAPAN
UNITED KINGDOM

For a complete list of worldwide locations,
visit http://www.gartner.com/technology/about.jsp