Inside Gartner Research

How the art, science and rigor behind our research process and proprietary methodologies help you make the right decisions, every day.
Information technology is critical to supporting increased productivity, service improvement and revenue in every organization around the world—and its importance is growing daily.

- Industries as diverse as automotive manufacturing, consumer retail and healthcare delivery are embedding technologies into products that collect data from thousands of new sources, creating, as analyst and Gartner Fellow Richard Hunter says, “a world without secrets.” It’s a world awash in information and absent of privacy, in which certain companies will earn not just trust, but the right to tell their clients what matters and why, and to lead.

- Dozens of people and parties will have the power to influence business direction, services, products and reputation, almost randomly, across global markets, outside official channels, through a potentially infinite Web and at a head-spinning pace, converging in what analyst and Gartner Fellow Diane Morello has termed “the hyperconnected enterprise.” Organizations that succeed in harnessing IT-enabled collaboration will lead. Those that don’t may be at a serious disadvantage.

- Technology providers play an increasingly important role in the organization, as techniques such as software as a service and virtualization impact everything from business process transformation to licensing costs to deployment strategies. Yet “strategic vendor management,” as analyst and Gartner Fellow Andy Kyte reminds us, “is rarely treated seriously as a business discipline, resulting in too many dysfunctional business relationships and unproductive fear and suspicion on both sides.”

These are but a few examples of the complex issues you face as a technology user, provider or investor — making Gartner more relevant than at any time in our 35-year history. Our research touches on hundreds more IT applications today than it did even five years ago.

Yet Gartner IT Score, IT Market Clock, Hype Cycle, Magic Quadrant, Vendor Rating and Market Forecast — accommodating far more information than in previous IT generations — remain the most intuitive, easy-to-use tools in the industry, thanks to their underlying methodologies that deconstruct IT’s complexity.

Many of you have expressed a desire for greater transparency into the ways we manage our research process and methodologies. This document is designed to give you a closer look at how they work. We know it’s our responsibility to earn your trust — and we’re confident efforts like Inside Gartner Research will make a difference in how you use IT to enable the business outcomes you desire.

Peter Sondergaard
Senior Vice President, Gartner Research
How To Use This Booklet
This booklet is designed as a reference you can read from cover to cover or refer to for more information when you need it. It is also a useful guide for people new to your organization who may be unfamiliar with Gartner research. Inside, you’ll see how Gartner analysts engage our mature research processes, proven methodologies and diverse client base to help you put technology to work.

Why Research Matters
There are many ways to inform your decisions about technology. One way is with research. What differentiates Gartner insight from other ways of getting information is a mature research framework supported by rigorous methodologies that have proven their effectiveness for three decades.

The goal of our research is to create independent insight that is not just reliable, but actionable. We sustain this goal by drawing on the most diverse community of technology users, providers and investors in the world (this community currently includes thousands of clients from more than 9,100 distinct enterprises). This enviable position helps us deliver a rich, multi-lens perspective. For example, our findings and conclusions about how technology is impacting the retail industry advise the retailer, the technology provider and those interested in retail technology as a financial investment.

Several other characteristics help us sustain our unique position:

An independent, unbiased approach
There is no shortage of information about IT markets. There is a shortage, however, of actionable advice from a qualified, unbiased source. As an independent research organization, we’re not obligated to any external agenda — and we’re not shy about putting solid stakes in the ground about how technology is impacting the future.

A quantitative/qualitative blend
We do more than collect facts, findings and observations. We tell you what it all means. While our quantitative skills are highly respected throughout the industry, we never omit the qualitative level that tells the story behind the numbers — the story others may not be seeing.

Peer review and collaboration
The insight authored by any single Gartner analyst is subject to a peer-review process before it is published. Each document is reviewed by multiple sets of objective eyes in order to fully test and challenge the conclusions, as well as the relevance and business value of the research.

Rigorous, proven methodologies
Research methodologies, based on repeatable, proven processes, prescribe logical steps that must be taken each and every time a methodology is executed. Our methodologies, which are continually updated and improved, are among our most valuable assets because they play a quality assurance role that is never compromised.

Finely tuned, role-based insight
When you succeed in your role, so do we. In addition to research topics, we organize our business outcomes with more innovative approaches.

Setting the Research Agenda
Clients often ask us how we decide what to study. Our business model, which positions us at the heart of technology users, providers and investors, engages all our constituents in the agenda-setting process:

Client interactions from user, provider and investor inquiries, as well as vendor briefings, expose trends and highlight new issues. Search statistics and Web page views on gartner.com further inform our agenda ideas.

Focus group and survey results help us refine the agenda. Personal interactions at events provide additional insight, which feeds into our quarterly review and recalibration process.

User councils and advisory boards, designed to gather critical feedback about our ongoing research, are conducted regularly with representatives of all our constituent groups worldwide.

Associates from other Gartner business units, such as managing partners from Gartner Consulting, provide input into the client implementation strategies they see occurring in the field. Gartner product managers share the market analysis they conduct to support the development of new research offerings. Gartner sales executives share the challenges their clients are facing.

We aren’t just internally focused when it comes to constructing the research agenda. We also track trends and gather ideas from secondary research and multiple sources throughout industry and academia.

While all of the above sources drive our agenda decisions, there are instances when formal agenda managers recommend that we explore a picture that is larger or more significant than what is revealed from our standard data collection process.

Moreover, our agenda is not set in stone. The agenda process is designed for change. For example, analysts constantly test their models, resulting in new ideas or ways of looking at things. Unforeseen market events, management announcements from key users or providers, or merger and acquisition activities can also trigger adjustments to the agenda.

Developing the Research Story
Gartner research reports are designed to tell a compelling story of how a situation is impacting those who are affected. But it’s more than situation and impact analysis.

Every piece of research articulates the courses of action clients can take to achieve a desired business outcome. For example, Vice President and Gartner Fellow Tom Austin says:

“Every business wants to be more productive. But strategies that focus on cutting routine production costs are running out of steam. A new wave of approaches — ranging from social tagging, expertise location, social network analysis and content, and other new analytic and inferential tools — help people and organizations improve their performance on non-routine tasks to improve the leverage of people with scarce and valuable creative skills. The results lead to enhanced business agility, innovation and revenue growth.”

Austin and his peers study the high-performance workplace to discover how productivity can be enhanced through technology investments that yield higher returns on existing resources, rather than by cutting resources. Gartner research in this area looks at investment strategies that depart from traditional thinking to create desired business outcomes with more innovative approaches.

Gartner reports use the elements of our research architecture — Scenarios, Key Issues and Strategic Planning Assumptions — to tell the complete story.
Scenarios
Gartner Master Scenarios paint a 30,000-foot “aerial” picture of the entire IT industry or a large geopolitical issue. For example, if the price of oil triples, what impact will that have on your near- and long-term business decisions? It might mean more investment in videoconferencing and wireless devices since people will travel less. How will other Web and audio technologies be affected? Moreover, what alternate scenarios could play out? If you’re a retailer or distributor, what impact would a new megavendor, “Goog-Azon,” created from a merger between Google and Amazon, have on your business? These events would alter the outcome of any large scenario; hence, we develop other pictures to help you prepare for the unexpected. Overall, topic and theme scenarios describe how events will unfold over the next few years based on trends we see developing today.

Finally, how will scenarios and their associated predictions play out in different global regions? Areas in software, hardware and IT services are covered in five global regions in fields of study such as Web services, real-time infrastructure, application development, environmentally sustainable IT, mobile computing and others.

Key Issues
Key management issues emerge from every scenario. For example, what are the technologies that are positioned to change an industry’s predominant way of doing business? For example, how will rising demand for energy in developing nations affect decisions about data center power and cooling? Which providers are leading in helping data centers address inevitable power deficiencies? Key issues help you identify and prioritize the types of decisions you’ll likely face as scenarios play out.

Strategic Planning Assumptions
The positions we take in our research are framed as Strategic Planning Assumptions (SPAs): the best Gartner answer to a key issue at a given point in time. SPAs include a concise positioning statement and a time frame to address questions long before all the facts are known and the answers become obvious, providing early advice to inform proactive planning.

For example:
- By 2020, consumer data collected from wearable devices will drive 5% of sales from the Global 1000.
- By 2017, over half of consumer goods manufacturers will employ crowdsourcing to achieve fully 75% of their consumer innovation and R&D capabilities.

An SPA creates a debate around an assumption. It goes beyond the facts and data into suppositions and judgment calls. In client organizations that want to be technology leaders, decisions are often educated judgment calls. SPAs are part of the education.

Inside the Gartner Research Process
Whether you’re a technology user, provider or investor, you support important decisions with predictions of how likely it is that current trends will convert to meaningful events. Our five-step research process helps us accurately interpret how trends that impact your future could play out.

Refining Scenarios
What revolutions or major discontinuities in IT will take place over the next five to 10 years? What kind of impact will they have on your current and future processes and investments?

Questions like these drive our research objectives. And because we’re independent and not tied to any predetermined outcome, we set objectives that explore tough situations or outcomes that people may not want to hear. Research objectives are updated as the industry evolves through technology advances, industry consolidation and changing business models.

Conducting Comprehensive Surveys
Once an objective is set, analysts gather information through formal and informal surveys of IT users, technology providers and investors, business professionals, academicians and other researchers. For example, analysts survey technology users’ investment and budget plans, and consult financial reports and government macroeconomic studies. Ideas are brainstormed within Gartner research communities.

Analyzing the Emergence of Patterns
Often the events that are flashy or cause the biggest reactions get disproportionate attention from technology providers or the media. Or they drive conclusions that are based on a short-term event that doesn’t have staying power. Our analysts aren’t distracted by blips on the radar, no matter how large they are, without doing additional homework.

By analyzing lots of data from lots of sources, Gartner can begin to see valid patterns emerging within markets. Assumptions are modified, new revelations are sparked, and scenarios are updated.

Creating the Stalking Horse
After analyzing data, information and opinions, analysts ask the important question: “What position should Gartner take?” But the information gathering doesn’t end here; it’s really just begun.

A “stalking horse” is a position released into the analyst environment to be examined from divergent viewpoints, adjusted, tested and adjusted again, until it appears to be the strongest conclusion to offer clients. In creating a stalking horse, we initiate challenges, questions, more debate and achieve greater understanding.
Validation
The final step validates our findings against multiple sources (both internal and external). We do a final search for input from all available channels. This is coupled with intense internal debate over our conclusions. Consensus on the position is reached, or the position is discarded.

Updating our research process is an ongoing process because our research architecture demands it. Validation restarts the process to ensure we keep pace with the rapid rate of change in the business and IT environments.

Inside the Gartner Research Methodologies
Clients value the underlying methodologies of our research process because these methodologies bring simplicity to complex situations. The graphical summaries methodology quickly inform and hasten decision cycles, helping you tackle complex decisions about IT investment priorities, the impact of globalization, the application of emerging technologies and other critical issues, with greater efficiency and effectiveness.

Highlighted are nine Gartner research methodologies:
- Magic Quadrant
- Critical Capabilities
- Hype Cycle
- IT Market Clock
- Market Guide
- Vendor Rating
- ITScore
- Market Share
- Market Forecast

Gartner Magic Quadrant
All our constituents, from users to providers to investors, have an interest in understanding and evaluating the major IT markets. But when markets are at different stages of maturity, and participating providers vary in their competitive strategies, this can be a daunting task. It all comes back to the need for a consistent approach, a benefit provided by Gartner market analysis methodology.

Markets vary in many ways, but all follow a predictable life cycle: embryonic, emerging, high-growth, consolidating, mature and declining. Gartner Magic Quadrants help clients understand markets in the middle phases of their life cycle by evaluating providers on their completeness of vision and ability to execute.

How Gartner Magic Quadrants position the providers
Magic Quadrants place providers that compete in growth markets in one of four “quadrants.”

Challengers
Challengers are well positioned to execute, but may not have a strategy in place to maintain strong, up-to-date value propositions for new customers. Larger providers in mature markets may often be positioned as Challengers because they choose to minimize risk.

Although Challengers typically have significant human and financial resources, they may lack vision, innovation or overall understanding of where the market is headed. In some cases, challengers may offer products that dominate a large but shrinking segment of the market. Challengers have the opportunity to move into the Leaders’ quadrant by expanding their vision.

Niche Players
Niche Players do well in a specific market segment or they have limited ability to innovate or outperform other providers. This may be because they focus on a functionality or geographic region, or they are new entrants to the market.

Assessing Niche Players is more challenging than assessing providers in other quadrants. While some Niche Players could make progress, others do not execute well and may not be able to keep pace with broader market demands.
**Leaders**
Leaders provide mature offerings that meet today’s market demand. These providers also demonstrate the vision necessary to sustain their leading position as the market evolves. Leaders focus and invest in their offerings in ways that impact and influence the market’s overall direction.

**Visionaries**
Visionaries align with the Gartner view of how a market will evolve, but they have less-proven capabilities to deliver against their vision. In new markets, this status is normal. But in more mature markets, it may reflect a competitive strategy for a smaller provider (such as selling innovation ahead of mainstream demand), or a larger provider trying to break out of a rut to differentiate.

For providers and customers, Visionaries fall into the higher-risk/higher-reward category. They often introduce new technology, services or business models, but they may need to build financial strength and more sophisticated service, support, and sales and distribution channels.

**The analysis behind Gartner Magic Quadrants**
A uniform set of evaluation criteria is used to assess how well technology providers are executing against their stated vision. The criteria used to assess a provider’s completeness of vision, positioned on the Magic Quadrant’s horizontal axis, includes:

**Market understanding**
Ability to understand and translate buyer needs into products and services.

**Marketing strategy**
Consistent communication of a clear, differentiated set of messages through the Web, advertising, customer programs and positioning statements.

**Sales strategy**
Ability to mobilize the complete marketing and sales mix using channels, marketing, sales support and communication affiliates to extend the scope and depth of the provider’s market reach and customer base.

**Product and service strategy**
The approach to product development and delivery; ability to differentiate functions, methodology and feature set in relation to current and future requirements.

**Business model**
The validity and logic of the underlying business proposition.

**Vertical industry strategy**
Strategy for directing resources to meet the needs of market segments, including those of vertical industries.

**Innovation**
Marshaling of resources, expertise or capital for competitive advantage, investment, consolidation or defense against acquisition.

**Geographic strategy**
Strategy to meet the needs of regions outside of the provider’s “home” or native area, directly or through partners, channels and subsidiaries.

The provider’s ability to execute, positioned on the Magic Quadrant’s vertical axis, assesses its capabilities in:

**Product and service management**
Product and service capabilities and product management, quality, feature sets and skills; these capabilities can be offered natively or through original equipment manufacturers (OEMs) as defined in the market definition and detailed in the quadrant’s subcriteria.

**Overall viability**
An assessment of overall financial health, the financial and practical success of the relevant business unit and the likelihood the business will continue to invest in its product offerings.

**Sales execution/pricing**
Pre-sales capabilities and support structure, including management, pricing and negotiation, pre-sales support and the overall effectiveness of the sales channel.

**Market responsiveness and track record**
Ability to respond, change direction and act with flexibility to achieve success as market gaps develop, competition increases, customer needs evolve and market dynamics change.
Marketing execution
The quality and efficacy of programs designed to deliver the provider’s message to influence the market, promote its brand, increase product awareness and create buyer empathy.

Customer experience
Relationships, products and programs that enable clients to experience success through the provider’s offerings; includes the ways customers receive account support and technical assistance, the quality and availability of customer support programs, access to user groups, and the quality, flexibility and availability of service-level agreements.

Operations
Ability to meet goals and commitments, including the quality of organizational structure and systems that enable the provider to operate effectively and efficiently.

How clients use Magic Quadrants
Clients use Magic Quadrants as a first step toward understanding the providers they might consider for a specific investment opportunity. With Magic Quadrants, technology users:
• Map provider strengths and challenges against their specific needs
• Get educated quickly about a growth market’s competing providers and their ability to deliver on what users require today and in the future
• Understand how a market’s providers are competitively positioned, and the strategies they are using to compete for user business

Magic Quadrant contextualization may extend a Magic Quadrant by providing industry, region or company-size perspectives about market direction, technology selection and vendors to consider for that perspective.

Gartner Critical Capabilities
Gartner Critical Capabilities will help you determine which technology or service best fits your needs by providing a comparative analysis that scores competing products or services against the set of critical differentiators identified by Gartner. Critical Capabilities reports show in graphical and tabular form which products or services are a best fit in the most significant usage scenarios for that market. These documents enable you to assess the comparative strengths of multiple products and services against your current (and future) needs.

Understanding Gartner Critical Capabilities Analysis
Together, Gartner Magic Quadrant and Critical Capabilities enable you to gain additional insight into a market and its vendors, along with a deeper dive into the products and services they offer. While Magic Quadrants assess the vendors broadly in a market, a Critical Capabilities report assesses the products or services in a market.

To evaluate products and services for Critical Capabilities, Gartner uses a comprehensive process that defines the boundaries of a market — and the products and services offered by that market.

Defining Use Cases and Capabilities
In defining the product/service category for evaluation, a Gartner analyst first identifies the leading usage scenarios for the products/services in this market. What needs are end users looking to fulfill when considering products/services in this market? All of the common client deployment scenarios are modeled. Some scenarios are combined, and less significant ones are eliminated, leaving between three and seven distinct client scenarios that define the use cases for the specific market.

Use Case 1

Use Case 2

Use Case 3

Best fit to use case

Provider, and Service

“Like most healthcare providers, our technology partners must understand the challenges of integrating our clinical systems with biomedical devices while we continue to automate the management of medical records. Gartner Magic Quadrants help us understand how the IT providers in our space are relatively positioned to meet our immediate application and integration needs. Magic Quadrants also keep us informed of providers that are innovating new solutions to old problems. They are key to our portfolio management.”

CIO, Healthcare Provider
Our methodology requires that the “critical capabilities” for a class of products or services are defined. These are attributes that differentiate products and services in a class in terms of their quality and performance. The critical capabilities will typically form a small subset or a grouping of the features commonly required by this class of products and services, not the entire range of capabilities that could be assessed. The capabilities that form the most important criteria for acquisition decisions for the defined usage scenarios are then established. These “critical” capabilities are distinct from the multitude of important criteria that would be common across all usage scenarios, but that offer little differentiation. Each capability will be more or less important to every use case defined, which is represented by its weighting.

How clients use Critical Capabilities

You can use Critical Capabilities to help gain a view of the positioning of providers’ products and services, allowing comparisons against a critical set of differentiators to support your strategic decisions. You can reference a Gartner use case or try the interactive features to customize the use cases used by a Critical Capabilities to suit your business needs and requirements and see which products or services are the best fit.

The interactive Critical Capabilities features can help you save time by offering the ability to download customized use-case graphics and scoring data that can be integrated into decision-making reports.

Gartner Hype Cycle

In IT, it’s not hard to find hype around a new idea that promises to generate new revenue or reduce costs. New applications of technology arise all the time, proposing more efficient ways to sell your product, consolidate your data centers or collaborate with suppliers.

But when will such applications pay off? Which applications are commercially viable in the short term and which still need time to mature? Perhaps you’re comfortable managing your own adoption issues, but what might discourage adoption of customers or partners?

Gartner Hype Cycles are designed to answer these questions and more. Each year, we publish Hype Cycles that analyze 2,000 technologies, applications and trends across 122 IT, business and consumer markets.

How Hype Cycles trace a technology’s life cycle

Every new technology goes through five phases, beginning with an event that triggers significant publicity, through growth and maturity that lead to an era of productivity.

**Technology Trigger**

A potential technology breakthrough kicks off new hype when a product or technology is introduced. There is often excitement and energy around the new technology and its applications, although sometimes there is no usable product and commercial viability is unproven.

**Peak of Inflated Expectations**

Next come rising expectations of first-generation products that might be highly specialized or even difficult to use. Early publicity produces a number of success stories, often accompanied by scores of failures. Products are highly priced as technology providers recover R&D costs. During this phase, aggressive organizations may start to pilot the technology, particularly if it promises competitive advantage. These organizations work closely with the providers to create customized solutions for their requirements.

As the Peak of Inflated Expectations crests, more technology providers jump in and the competition increases. A growing number of enterprises examine how the technology may fit within their business strategies, although most do not take action.

Gartner Hype Cycles provide a graphic representation of the maturity and adoption of technologies and applications.
Trough of Disillusionment
Issues with first-generation products arise, often because the technology is pushed beyond its limits. Negative publicity sends the technology and its applications into the Trough of Disillusionment. The technology does not live up to the inflated expectations and is rapidly discredited. Some of the early trials end in highly publicized failures. A significant amount of provider consolidation occurs.

However, amid the disillusionment, trials are ongoing and providers are improving products based on early feedback. Some early adopters find benefit in putting the technology to work.

Slope of Enlightenment
The technology begins its climb toward the early stages of maturity as second- and third-generation products are launched, and methodologies and tools are added to ease the development process. Aggressive organizations are comfortable managing any adoption issues, while moderately aggressive organizations initiate pilots. Conservative enterprises remain wary.

At the beginning of this phase, penetration is often significantly less than 5% of the potential market. This will grow to approximately 20% as the technology enters the Plateau of Productivity.

Plateau of Productivity
The Plateau of Productivity represents the beginning of mainstream adoption, when the business benefits of the technology are positively measured. As the technology matures, an “ecosystem” of multiple providers of products and services emerges. Adjacent markets that extend the technology’s value also emerge.

As applications are adopted in thousands of enterprises, the hype begins to diminish and the criteria for assessing provider viability become defined. The technology’s broad market applicability and relevance are clearly paying off.

When can you expect mainstream adoption?
Technologies take years, sometimes decades, to traverse the entire Hype Cycle. Our “Years to Mainstream Adoption” rating helps set expectations:

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Years to Mainstream Adoption</th>
</tr>
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<tbody>
<tr>
<td>Transformational</td>
<td>More than 10 years</td>
</tr>
<tr>
<td>High</td>
<td>5 to 10 years</td>
</tr>
<tr>
<td>Moderate</td>
<td>2 to 5 years</td>
</tr>
<tr>
<td>Low</td>
<td>Less than 2 years</td>
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Benefits are:
- Transformational: Enables new ways of doing business across all industries that will result in major shifts in industry dynamics.
- High: Enables new ways of performing horizontal or vertical processes that will result in significantly increased revenue or cost savings for an enterprise.
- Moderate: Provides incremental improvements to established processes that will result in increased revenue or cost savings for an enterprise.
- Low: Slightly improves processes (for example, improved user experience) that will be difficult to translate into increased revenue or cost savings.

The vertical axis looks at the potential benefit of the technology. Options for the benefit rating are:
- Transformational
- High
- Moderate
- Low

How clients use Gartner Hype Cycles
Clients use Gartner Hype Cycles to:
- Time their investment decisions about emerging technologies
- Drill through the hype to the real drivers of what will make a new technology commercially rewarding for their own situation
- Compare their understanding of a technology’s evolution with the structured analysis and observations of Gartner

Hype Cycles in action
"Gartner Hype Cycles show us which emerging technologies support our vision for business advantage in both consumer and B2B markets. We also use Hype Cycles to inform our internal investment proposals. No other organization has the research infrastructure and seasoned analysts necessary to evaluate something as large and mind-boggling as emerging technologies. With Hype Cycles and supporting insight from Gartner, we’ve improved our investment returns on emerging technologies tenfold." 

Senior Partner, Management Consulting Firm
Gartner IT Market Clock

The useful life of every technology product or service has an end, beyond which it will be more cost-effective to retire and replace the asset than to continue maintaining it. Many organizations take a structured approach to adopting new technology assets, but few have mechanisms for deciding when to replace or change their sourcing approach.

We know our clients need to understand the opportunities and risks their portfolios of technology assets are presenting. They also need to better determine how best to transition that portfolio forward. During the years ahead, these decisions will become even more challenging: Aging IT environments, tight budgets and demands to deploy new business capabilities more rapidly will require the consideration of many compromises and trade-offs.

Gartner IT Market Clock provides critical input to this decision process and will help you allocate scarce resources in a way that maximizes business value.

Helping you evaluate and prioritize investments

Gartner IT Market Clocks help you evaluate and prioritize investments across items within your technology asset portfolio. These decision frameworks provide a full life cycle view of technology assets — whether they are capabilities, products or services. IT Market Clocks help your organization solve two of the biggest IT issues it currently faces: cost-justifying modernization projects and prioritizing your investments to support business plans. There is also a range of implications for technology providers as to how they manage the portfolios of products and services they sell.

Providing a consolidated view of your IT assets

The Gartner IT Market Clock positions your IT assets on a clock-face graphical framework to represent relative market time. Each clock begins at 0 (the “Market Start”) and moves clockwise around to 12. Each point on the clock represents an IT asset or asset class positioned on the clock using two parameters: position in useful market life and level of commoditization.

- **Position in useful market life** is shown as the distance around the clock and is a relative measure, so that all assets follow the same 12-hour cycle, however long that cycle takes to complete.
- **Commoditization** is the distance from the center of the clock and is a quantitative measure based on objective scores against multiple factors — assets further from center are more commoditized.

The clock is divided into quarters, each representing one of the market phases of an asset’s useful life. The names of the quarters highlight the general approach recommended for assets passing through that phase:

- **Advantage** — assets in the customized phase, which provide differentiated technology, service or capability
- **Choice** — assets in the mass-customized phase, subject to increasing levels of standardization and growing supply options
- **Cost** — assets in the commoditized phase, where differentiation between alternative sources is at its minimum level and competition centers on price
- **Replacement** — assets in the disfavored phase, usually legacy technologies, services or capabilities

Three transition points separate the four phases of the Gartner IT Market Clock

- **The Dawn of Standards:** Nine o’clock is the boundary between the Choice and Cost phases. Applicable standards are mature and broadly embraced, supplier choice reaches its maximum level, and competition is at its most intense. Demand growth slows as the addressable market approaches saturation. Many organizations look for industrialized technology options (predesigned and preconfigured solutions that are highly automated, repeatable, scalable and reliable).
- **The Zenith of Industrialization:** Six o’clock is the boundary between the Choice and Cost phases. Applicable standards are mature and broadly embraced, supplier choice reaches its maximum level, and competition is at its most intense. Demand growth slows as the addressable market approaches saturation. Many organizations look for industrialized technology options (predesigned and preconfigured solutions that are highly automated, repeatable, scalable and reliable).
- **The Dusk of Obsolescence:** Nine o’clock is the boundary between the Cost and Replacement phases. The addressable market is saturated, and lower-cost or better alternatives are usually available. Buying organizations and suppliers begin to refocus elsewhere. Skills also begin to be less freely available as workers retrain in more profitable areas.

A Market Clock Recommendation Summary provides a tabular summary of the positions and expected trajectory for each IT asset or asset class. It also highlights, for each technology asset listed, general recommendations “at a glance” that need attention right away or in the near future — as well as what the issues are and who needs to pay the greatest attention to them. In some cases, the recommendation is not for the entire market or asset class, but rather it highlights specific opportunities or risks for a specific vendor/product.

Complementing Gartner Hype Cycles

Gartner Hype Cycles track the expectations of technologies from their emergence through early maturity. Gartner IT Market Clocks highlight the market progress of your IT assets from the first time they can be used to when they must be retired.

The IT Market Clock is complementary to the Hype Cycle and fulfills a separate objective. In simple terms, the Hype Cycle supports “technology hunting” decisions, while the IT Market Clock supports “farming” decisions for assets already in use. Many technologies that move off Gartner Hype Cycles when mature will continue to be represented as assets on IT Market Clocks as they progress through their useful market lives. Some IT Market Clock asset classes are also associated with a Gartner Magic Quadrant that provides detailed analysis of the asset’s marketplace.
How clients use IT Market Clocks

Designed to support multiple IT roles and functions, IT Market Clocks provide a consolidated view of IT assets within a specific portfolio and can assist with portfolio balancing, project prioritization and the development of business cases for investment/divestment.

Clients use IT Market Clocks to:

- Identify which assets in their current and planned technology portfolios are facing what opportunities and risks
- Build technology road maps that support business plans
- Justify how to replace, upgrade or divest technology assets as part of a prudent investment strategy
- Surface cost-saving opportunities through better exploitation of commoditization in the marketplace

Gartner Market Guide

Gartner Market Guides provide a definition of an emerging, very mature or smaller market, covering market dynamics and a view of the participants. They highlight the trends, providers and significant attributes of a market, enabling the evaluation of their potential impact on your strategy.

A Gartner Market Guide does not score or position vendors or their products and services; however, it will give you insight into early market momentum and a representative view of emerging vendors. A Market Guide provides independent, objective perspectives you can consider when developing technology and business strategies, enabling you to understand how the capabilities within a specific market align to your business objectives.

Market Guide analysis

A Gartner Market Guide will define the market, provide analysis of that market and explain how the market is expected to evolve. It will also contain recommendations and precautions you should take now and in the year ahead.

Gartner Market Guides will help you understand a market quickly and provide definition and structure as you determine how the market should factor into your strategy and start to lay the groundwork for making decisions.

Gartner Vendor Rating

Gartner Vendor Ratings help you understand how a provider’s offerings and strategic direction align with your business objectives, as well as assess the overall balance of your strategic provider portfolio.

The decision to enter into a relationship with a technology provider requires more than an evaluation of the provider’s product or service offerings. Vendor Ratings evaluate all the different aspects of a technology provider, such as products, support, pricing, technology, strategy and financials — all characteristics that should be considered for a complete understanding of the provider’s potential to sustain longer-term relationships.

How we arrive at Vendor Ratings

Vendor Ratings use the Gartner five-point rating scale that rate a provider from Strong to Weak.

Each rating has specific implications for customers currently using the provider and for those considering a future investment in that provider.

The due diligence behind Vendor Ratings

The due diligence that informs our Vendor Ratings spans everything from an evaluation of the provider’s strategic capabilities and organization to its financial strength. The provider’s talent in harnessing technology for innovation is evaluated, along with its capabilities in maximizing channels of distribution pricing.

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<th>RATING</th>
<th>DEFINITION</th>
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| Strong  | Is viewed as a provider of strategic products, services or solutions:  
- Customers: Continue with planned investments.  
- Potential customers: Consider this vendor a strong choice for strategic investments. |
| Positive | Demonstrates strength in specific areas, but execution in one or more areas may still be developing or inconsistent with other areas of performance:  
- Customers: Continue planned investments.  
- Potential customers: Consider this vendor a viable choice for strategic or tactical investments, while planning for known limitations. |
| Variable | Shows potential in specific areas though still variable in more than one of the required categories:  
- Customers: Consider the short- and long-term impact of possible changes in status.  
- Potential customers: Plan for and be aware of issues and opportunities related to the evolution and maturity of this vendor. |
| Caution  | Faces challenges in multiple required categories and execution is inconsistent:  
- Customers: Understand challenges in relevant areas, and develop contingency plans based on risk tolerance and possible business impact.  
- Potential customers: Account for the vendor’s challenges as part of due diligence. |
| Weak    | Has difficulty responding to problems in multiple areas:  
- Customers: Execute risk mitigation plans and contingency options.  
- Potential customers: Consider this vendor only for tactical investment with short-term, rapid payback. |
Products/services
Gartner evaluates how the provider delivers and supports its offerings. Providers may offer products (such as hardware, software and networking) and services (such as implementation, consulting and integration). We also consider how well a product fits into a provider’s overall strategy, its completeness and the size of any gaps in its offering portfolio.

Support services
We evaluate the instances, both positive and negative, that Gartner clients experience with a provider’s support services. We also look at the provider’s ability to support its legacy solutions and new products, as well as its ability to leverage partners to round out a complete solution for customers. We consider whether a provider uses services to grow its business or support its business. For example, does the provider have service customers who are not product customers?

Pricing
Prices should be fair, and pricing policies should be consistent, with clear terms and conditions. We take note of the provider’s established pricing practices and discounting policies, and whether a provider is acquiring business with unsustainable pricing practices in an effort to buy market share.

Technology
Gartner analysts are specifically interested in whether a provider is being proactive or reactive to technology developments that impact its offerings. For example, is the provider truly harnessing new technology or just repackaging its communications to reflect new thought leadership? Are product suites based on common architectures? Is the technology extensible and adaptable to change? Are underlying architectures taking advantage of mainstream industry standards?

Strategy
When evaluating strategy, we assess the provider’s strategic soundness, long-term potential and capabilities to define its opportunities in both present and future markets. We also look at the company’s clarity of goals and its employee commitment. Is the provider pursuing the right markets? Is the provider staying away from markets that aren’t appropriate for its solutions? Answers to both types of questions are sought.

Financial
Gartner evaluates how well a provider’s revenue stream (from products, services and subscriptions) supports its strategy, stability and cash position. We also consult financial filings and other sources that measure profitability and growth. Other metrics we analyze include consistent revenue growth, cash position and the provider’s R&D investment history.

How clients use Vendor Ratings
Clients use Gartner Vendor Ratings to inform their portfolio management, including the technology providers they use today or are considering for the future. With Vendor Ratings, clients get a better understanding of the drivers of provider performance, helping them to:
- Manage the risk of their provider portfolios while keeping an eye on up-and-coming players or potential alternate providers
- Understand how providers’ products and services stack up and how they are positioned to survive in the long term
- Support key purchase and renewal decisions

Vendor Ratings in action
“We review and evaluate our strategic technology providers two times per year. With hundreds of partners, it’s a daunting process, made simpler by Gartner Vendor Ratings. Gartner delivers ratings we trust because they are objective, unbiased and based on a methodology that is proven and reliable. The added insight we get from the analysts who religiously follow our key providers is invaluable and something we could never replicate.”

CDO, U.S. Federal Government Agency
Gartner ITScore

IT organizational maturity is hugely influenced by the role of technology in the enterprise, as well as by business leader behaviors and attitudes concerning IT. Even the most effective IT leaders find it difficult to influence these factors because they are often a by-product of enterprise industry, culture and leader demographics — all of which are slow to change. This can create a maturation ceiling beyond which the IT organization cannot, and perhaps should not, advance until the business itself signals it is ready.

Gartner ITScore quantifies the maturity of both the IT organization (as a provider of information technology) and the enterprise (as a consumer of information technology), and present recommendations for enhancing the capabilities of both. Business and IT leaders can exploit ITScore to identify and remedy constraints on their capacity and performance in leveraging IT.

This combined top-down and bottom-up approach provides business and IT leaders significant insights into what they want to accomplish, where they are today in developing the necessary capabilities, and what they need to do to close gaps and advance.

How Gartner ITScore Differs From Other Maturity Models

ITScore provides a holistic view that goes beyond functional/role disciplines to arrive at a nuanced, comprehensive assessment that is truly diagnostic and produces meaningful, recommended actions. It differs from other maturity models in some important ways:

• First, it not only examines IT leadership effectiveness and incorporates the realities of business behaviors, perceptions and expectations into the assessment, but also tests the degree to which capabilities are integrated and their combined power leveraged for enterprise advantage. Most traditional IT assessments look only at the inner workings of the IT organization — that is, the degree to which core managerial competencies exist and key practices are reliably executed. ITScore goes much further by looking at how those competencies impact one another.

• Second, ITScore is outcome oriented. Maturity models usually focus on attributes — for example, the existence of a specific process and the degree to which it is consistently followed. They often have little to say about whether the process is good or bad or how it contributes to desired results. ITScore avoids this pitfall by focusing not just on attributes, but also on contribution and results.

• Third, ITScore is practical. In the real world, maturity is neither linear nor unidirectional. Achieving a utopian state of near-perfection in key processes or attributes can actually have negative consequences on the enterprise. Where appropriate, ITScore takes this into account.

• Fourth, Gartner provides complementary research that helps leaders explicitly understand where they should be on the maturity score based on business realities, not just where they are or what is required to get to the next level. Other maturity models fall short here, leading enterprises to conclude that higher levels of maturity are always “better,” irrespective of their opportunity costs or enterprise industry, business models and cultural conditions.

How does ITScore work?

ITScore is based on three components: Organizational Questions, CIO Survey and Role Surveys.
Organizational Questions, in conjunction with at least one of the CIO/Role surveys, capture how well your enterprise leverages IT to improve business outcomes.
CIO Survey evaluates your IT organization from a managerial and leadership perspective. Role Surveys assess eight individual roles and disciplines within your IT organization, measuring the effectiveness of IT leaders in developing and exploiting core IT organizational capabilities.
You can take as many of the available surveys as you choose. Each time you take the Organizational Questions survey in conjunction with at least one CIO/Role survey, you receive an IT maturity score and recommendation report for the specific role examined, as well as an enterprise IT maturity score and accompanying explanation. The more surveys your organization completes, the more accurate your results and the more applicable the recommendations will be.
Surveys can be taken many times in order to track progress over time, and the tool supports “what if” scenarios that can be stored for later reference. Sub-organizations within a broader enterprise can also take the surveys, creating the ability to compare or contrast different business entities, IT departments and even teams or functional groups devoted to specific disciplines.

How clients use Gartner ITScore

Clients use ITScore to:

• Identify and remedy constraints on their organization’s ability to drive better business results with the strategic use of IT
• Assess and compare maturity across IT disciplines, and leverage best practices throughout the organization
• Provide an objective basis for cross-functional communication, collaboration and planning
Gartner Market Share

Market share is one of the most widely consulted metrics in business. And upon first glance, it appears to be one of the easiest metrics to compute: one company’s revenue divided by that of the total market.

But share numbers raise a host of questions:
• How broadly (or narrowly) is the market defined?
• Is share measured by revenue? Number of units sold? Is the market leader achieving the most share by selling more or fewer (hence, higher-priced) units than its nearest competitors?
• Is share based on numbers before or after discounts?
• Do the numbers include revenue from maintenance and professional services?

Constructing the story behind Market Share analysis

Gartner Market Share analysis is accompanied by insight and advice that tell the story behind the numbers. For example, share analysis for the devices market answers questions such as:
• Will I have to refocus my portfolio from phone to ultraphones to wearables?
• Which companies are poised to inject the market with new growth and take additional share?
• What new technologies are leaders exploiting to take the market in a different direction?
• Can I serve enterprises by focusing on consumers?

Gartner Market Share analysis dives into these types of questions to help users, providers and investors understand what the numbers mean.

Market Share analysis is more than a ratio

Market share indicates how well a firm is doing vis-a-vis its competitors. But market share numbers have limited value if they aren’t accompanied by analysis that shows how they’ve changed and how they’re expected to change in the near and longer term.

For example, have share numbers of a particular company improved as a result of growth in the existing market? Or is the company seizing more share from new applications of existing technology? Is there a direct relationship between a leader that has gained share and one that has lost share? Gartner Market Share answers these types of questions and more.

Market share analysis is never a trivial exercise

The Gartner approach to market share analysis combines primary surveys and vendor briefings with secondary research such as public financial disclosures, industry trade association material and government statistics.

Multiple data points ensure that the statistics are objective and accurate and that quality checks are in place to prevent double-counting across sectors.

Through Gartner Market Share methodology, clients see how share is allocated among more than 1,200 technology providers in key markets. A detailed analysis of how provider revenue is allocated reveals what types of products are succeeding, which are trailing and where opportunities exist for providers to take additional share.

How do clients use Market Share analysis?

Clients depend on Gartner Market Share analysis to validate their assessment of a market’s leading providers. IT providers, in particular, rely on Gartner share analysis to understand their own market positions.

Clients also use market share data to monitor trends and identify shifts that may indicate opportunities to capture additional share. Because many markets are updated quarterly and all markets are updated annually, clients can be confident in the timeliness of the data for supporting their business decisions.

Market Share in Action

“After we developed an innovative approach to supply chain management for our internal use, we considered taking it to market. Our investors demanded answers to the usual questions. Who are the leading players? Who can we expect to face head-on, and how is their share of the market changing? Gartner Market Share analysis, combined with analyst insight, helped us draft a go-to-market plan that satisfied our investors, and we took advantage of a limited window of opportunity.”

CEO, Supply Chain Company
Gartner Market Forecasts

Insight into why markets are growing, maturing or declining never fails to get attention from the media — and technology users, providers and investors. But a short-term surge in market behavior doesn’t always signal a long-term growth trend. And years of growth have been known to suddenly turn south.

At Gartner we understand that there’s a lot of art amid the science of market forecasting. We also understand that forecasting requires more than cursory examinations and flashy predictions. Hence, our market forecasting methodology is designed to give clients the most thorough, complete and accurate picture available.

How we predict market behavior

Gartner Market Forecasts provide a comprehensive understanding of supply and demand. Forecasts are based on at least two years of historical data and five years of future projections.

We track the complete supply chain

Our Market Forecasts help you fully understand supply and demand by market, country and global region. For example, take the market for phones. Our services research tells us how many subscribers are in each region, which ties back to our handset numbers, which in turn link back to semiconductor sales. Our enforcement of data consistency, across all the major IT markets we track, drives a quality of information you won’t find anywhere else.

Market Forecasts provide supporting analysis that explains how Gartner envisions market trends playing out in both primary and adjacent markets and the associated assumptions that Gartner believes have high impact on the forecast.

Our relationships with 9,100 distinct enterprises across both the provider and user communities give clients a picture of supply and demand they can only get from Gartner.

As a result, clients use our forecasts as checks against their own internal forecasts in the telecom, IT services, software, device, data center system and semiconductor industries to:

- Understand the potential market opportunities
- Identify changing market conditions, their impact on the market and the related assumptions
- Evaluate, formulate and validate business plans

Gartner Research Communities

In today’s business world, no one can go it alone. At Gartner, analysts from around the globe meet in Research Communities to discuss a wide range of topics.

Research Communities are created by the analysts themselves when a topic arises that is complex and has broad impact. A Research Community is retired when that topic area becomes more stable and is surrounded by fewer uncertainties. Current Research Communities span the following areas of interest:

- Application Strategy & Governance
- Business Analytics Management
- Business Process Services
- Cloud Management
- Compliance, Audit and Legal
- Computing and Communication
- Content Management
- Customer Service and Support Strategies
- Data Center Facilities
- Digital Marketing
- Emerging Trends and Technologies
- Enterprise Architecture
- Enterprise Risk Management
- Information Management Technology
- Internet of Things
- IT Audit
- IT Procurement and Cost
- IT Service & Enterprise Management
- IT Services and Sourcing (ITS&I)
- Mobile & Wireless
- Platform as a Service (PaaS)
- Process Innovation and Excellence
- Social Media
- Storage
- Vendor Management
- Virtualization
- Web Technologies

The People Who Make It Work

Gartner organizes for conducting research through a flexible structure of global teams and virtual communities of interest. Individual analysts are affiliated with a specialist research team, a larger group of related teams and with one or more communities.

This decentralized, yet connected structure also enables us to respond quickly to market changes whatever that market may be.

Gartner Fellows

Each year, Gartner awards the title “Fellow” to a select number of analysts who have been consistent innovators and thought leaders in some of IT’s biggest challenges and opportunities. This global think tank combines the best of industry and academia to ensure that Gartner remains at the leading edge of trends and ideas.

For example, Gartner Fellow Neil MacDonald says: “Security and virtualization are hot topics on their own but explosive when they are combined. The Gartner Fellows program is doing a lot to enable my research in this area, which ultimately helps users, providers and investors. It’s a great example of the unique type of research that is possible through the Gartner Fellows program.”

Gartner Fellows also contribute to the Gartner Research Incubator: A Journal of Unconventional Thinking, a publication devoted to new ideas currently being developed in the Gartner “lab.” The journal provides clients with an opportunity to see the very first wisps of ideas as they are being formulated.
Gartner Research Chiefs
Each research organization within Gartner has a Chief of Research to ensure that a common approach is used across disciplines. Research chiefs are also tasked with addressing coverage of any gaps we discover between research groups. IT organizations have become increasingly complex as diverse technologies enable every part of the business. While individual technologies differ in their design and approach, they must work in harmony to solve common business problems. Attention to consistency of approach is one way research chiefs ensure that we deconstruct complexity into clear, actionable advice.

Gartner Agenda Managers
What are the questions most pertinent to you as a Gartner client? Our agenda managers act as client advocates, surfacing the issues that will be addressed in our research. Agenda managers work together across focus areas to create a common set of high-level key issues so that we as a research organization address the most critical issues from a wide variety of perspectives.

Office of the Ombudsman
Gartner is the only research organization of its kind equipped with an ombudsman’s office designed to protect independence, objectivity and accuracy in our quest to provide the highest-quality insight for our end-user clients. When the rare issue arises that challenges our core principles, we’re ready to address it head-on. We follow a defined process if anyone (client, non-client, internal associate) takes issue with anything Gartner has published or recommended in a consulting engagement or anywhere else they are impacted by Gartner opinion (e.g., sales calls, presentations, media quotes).

• The first point of escalation is the associate who authored the research or recommendation at issue.
• The second point of escalation is the associate’s manager, who will verify whether all methodologies and processes were followed, and that all Gartner positions have been appropriately supported.
• The final point of escalation is the ombudsman. Sometimes it’s just a matter of bringing the parties together to work the issue through on an even playing field. Other times it requires changes to published documents or even policies, or simply reinforcing existing guidelines and policies.

Our commitment to ethics, as expressed by the Office of the Ombudsman, is one of the ways we establish trust across the entire community of technology users, providers and investors. The ombudsman reports outside of the Gartner business-unit management chain, providing independent problem resolution. While not every issue can be resolved to the satisfaction of all parties, the ombudsman process offers a fair, balanced approach.

Summary
Research is essential to any business because it informs decisions, reduces risk and helps us understand how others like us are responding to change. But for research to add real value and confidence to decision making, it must derive from an unbiased source with no interest in any predetermined outcome.

Reliable research must also be interpreted by analysts who can:
• Communicate more than just observations and findings — through knowledge, insight and teamwork that help them report what the research means
• Apply both quantitative and qualitative methods with rigorous methodologies driven by principles that have been tested and proven to deliver reliable advice
• Continually fine-tune methods and tools with the most current information that is free from bias or personal interest in any predetermined outcome

The Gartner research process is driven by an agenda that considers input from a variety of market and client sources. It is designed to accommodate change while considering topics that may not always be intuitively obvious or mainstream. Agenda managers recommend areas of inquiry that may be bigger or different than the trends we’re seeing.

Several tools, based on proven methodologies, help clients:
• Separate the hype of emerging technologies from commercial viability by using Hype Cycles
• Understand the players in the major IT markets by using Magic Quadrants
• Find out which products or services are most suited to a specific use case by using the Critical Capabilities associated with the Magic Quadrant
• Analyze the impact of emerging and mature markets on IT strategies by using Market Guides
• Evaluate more than the functionality of commercial offerings by using comprehensive Vendor Ratings
• Monitor how markets are growing, maturing or declining by using Market Forecasts and Market Share analyses

We hope you’ve found this inside look at the Gartner research process helpful. Though our research process and methodologies have proven their value many times over, we continue to step up our investments to make them even better. It’s our passion to ensure that you, the client, get the most accurate, trusted insight possible to make the decisions that fuel success in your role and in your organization.

Get More Information
For additional information about the Gartner research process, its underlying methodologies and how our research is managed for objectivity and reliability, contact your Gartner representative, or visit gartner.com and click on Research Methodologies.

*Without Gartner, we’d likely find ourselves perpetually overspending on IT and taking more time to complete technology-enabled business initiatives.*

Senior Architect, U.S. Energy and Utilities Association

*We value the independent, unbiased quality-assurance services we receive from Gartner.*

E-Business Program Director, Global Mining Company