

Introducing the Gartner IT Infrastructure and Operations Maturity Model

Donna Scott, Jay E. Pultz, Ed Holub, Thomas J. Bittman, Paul McGuckin

Gartner's IT Infrastructure and Operations (I&O) Maturity Model helps I&O leaders evaluate their maturity with respect to people, process, technology and business management, and establish a road map for increasing levels of maturity to service alignment and partnering with the business.

Key Findings

- The I&O Maturity Model assesses four dimensions of I&O: people, process, technology and business management.
- Each level of increased maturity provides substantially higher business value.
- Each maturity level transition is likely to take multiple years.

Recommendations

- Assess your I&O maturity with respect to people, process, technology and business management.
- Develop a road map of increasing maturity levels along with return on investment (ROI) criteria for program justification — focus on the maturity dimension that needs the most improvement.
- Define maturity improvement initiatives that can be executed in four to six months.

ANALYSIS

Gartner's I&O Maturity Model assesses maturity in four critical dimensions — people, process, technology and business management — and enables the creation of a road map for improvement. This model can be used to track progress toward higher levels of maturity and business value.

We often get calls from I&O leaders looking to benchmark the maturity of their I&O environments, and looking for assistance in building a road map for improvement. Gartner has developed a number of maturity models in response to these requests (including the IT management process maturity model, networking maturity model and infrastructure maturity model); however, they all assess a portion of I&O, as opposed to the entire sphere of I&O responsibilities and functions. Although these individual maturity models are useful in terms of granularity in specific areas, we believe that it is necessary for I&O maturity efforts to be cross-disciplined and coordinated.

The Structure of an IT Maturity Model

The grandfather of maturity models is the Capability Maturity Model (CMM), developed in 1987. CMM was breakthrough work, stressing the concept that process was central to capability maturity. Based on the CMM concept, numerous maturity models have been spawned — primarily focused on assessing IT process maturity.

Greater I&O process maturity is essential if I&O leaders are to improve IT services delivered to customers (see "Gartner Poll Suggests IT Management Processes Aren't Maturing"). However, we believe that, although a focus on process is necessary, it's not sufficient for IT maturity, especially in I&O. Process-centricity makes sense when process alone drives maturity, and all other elements follow. However, in the IT industry, the technology is constantly evolving, and discontinuity is the norm. Technological changes can require resetting maturity in other areas; for example, operationalizing virtualization requires process changes. Hence, technology is also affecting maturity. An IT maturity model must include technology. As IT becomes more ingrained in business processes, IT organization, culture and skills will also need to radically change. Culture, organization and personnel changes will often be prerequisites for process improvement and shifts in how technology is leveraged. Finally, people, process and technology are driven and constrained by the ways in which they're managed, including the governance procedures. Hence, we see process, technology, people and business management as the four essential dimensions of I&O maturity.

These four assessment dimensions should generally move together and be aligned as I&O maturity increases. However, we recognize that, although they tend to move in the same direction, they don't all move at the same rate, because the rate will depend on organization, business and investment priorities. As a result, we encourage our clients to pay attention to all four dimensions; otherwise, if one lags consistently, it will hold you back from gaining the overall benefits of the I&O maturity level for which you're striving.

Another important aspect of an IT maturity model is the need for a rapid ROI. Because of the rate of technology change, the change in business requirements and operational processes, and the need for new skills and collaboration methods, IT projects that require many years of implementation and expect a long-term ROI inevitably fail, as tools change or goals shift. An IT maturity model must provide for smaller steps, implementable in no more than two or three years, that generate measurable, rapid ROI.

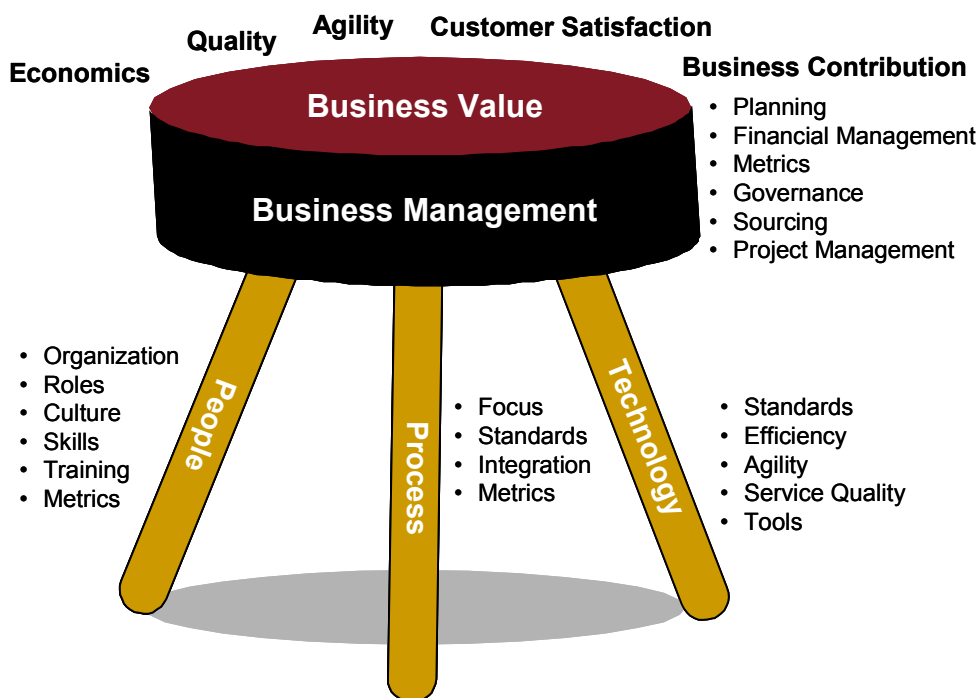
Although it may take several years for organizations to progress to the next level in the maturity model, they should define improvement initiatives that can be executed in four to six months.

These smaller initiatives make the changes easier to absorb and ensure that incremental benefits are being realized while on the longer maturity journey.

Figure 1 identifies the four-dimensions assessment areas of the I&O Maturity Model, using a stool analogy. The people, process and technology assessments represent the legs of the stool, whereas the business management functions tie the legs of the stool together. The business value metrics of using the model are shown above the stool and include:

- **Economics** — Improvements in cost, efficiency, productivity
- **Quality of service** — Factors related to how required services are delivered to the business, including availability/uptime, response times and transaction rates
- **Agility** — The efficiency and speed with which IT responds to business, technology and regulatory change
- **Customer satisfaction** — Improvements in customer satisfaction
- **Business contribution** — Improved I&O business value (such as revenue, profits and speed to market)

Figure 1. The Components of Gartner's I&O Maturity Model



Source: Gartner (October 2007)

Projects that move an I&O organization from one level to the next typically use these metrics to justify the project's ROI.

In Figure 1, the attributes being assessed for maturity are shown next to each of the four assessment dimensions. For example, business management maturity is measured in terms of planning, financial management, metrics, governance/standards, sourcing and project management.

Gartner's I&O Maturity Model

We have defined six overall levels of I&O maturity, with the following objectives for each level:

- **Level 0, Survival** — Little to no focus on IT infrastructure and operations.
- **Level 1, Awareness** — Realization that infrastructure and operations are critical to the business; beginning to take actions (in people/organization, process and technologies) to gain operational control and visibility.
- **Level 2, Committed** — Moving to a managed environment, for example, for day-to-day IT support processes and improved success in project management to become more customer-centric and increase customer satisfaction.
- **Level 3, Proactive** — Gaining efficiencies and service quality through standardization, policy development, governance structures and implementation of proactive, cross-departmental processes, such as change and release management.
- **Level 4, Service-Aligned** — Managing IT like a business; customer-focused; proven, competitive and trusted IT service provider.
- **Level 5, Business Partnership** — Trusted partner to the business for increasing the value and competitiveness of business processes, as well as the business as a whole.

Many large IT organizations will look to transform themselves to achieve Level 4 (service-aligned status) to align IT with business priorities and deliver consistent and competitive IT services. A few will make it past that to become a business partner, focused on innovation and increasing the value of the entire business (not just IT service delivery), with benefit metrics focused at the business contribution level. Achieving I&O maturity is a multiyear transformation, and the movement from one level to another is not evenly distributed in time and effort. Each level transition is likely to take multiple years, and each is likely to require sustained commitment. Lapses (for example, due to organizational changes or changes in priorities) can result in significant delays achieving the next level, or cause it not to be attained.

Figure 2 depicts the six levels of I&O maturity, with a high-level description of each of the four dimensions of assessment: people, process, technology and business management.

Figure 2. The Levels of Gartner's I&O Maturity Model

	Survival	Awareness	Committed	Proactive	Service-Aligned	Business Partnership
People	No organizational focus on IT infrastructure and operations	Defined, technology-centric organization for IT infrastructure and operations	Technology-centric organization; investment in IT service desk function and staff	Process-centric organization, defined governance structure	Customer- and business-focused, IT service and delivery centric organization, formal governance	Business optimization and entrepreneurial focused culture
Process	No formal IT processes for IT infrastructure and operations	Ad hoc, but aware that processes are necessary; dependent on tools to implement de facto processes	Defined processes for IT service support and project management	Repeatable and individually automated; focus on IT service delivery-related IT processes	Integrated, automated and extended beyond I&O; focus on all service and business management processes	Dynamic optimization of IT services, implement processes fostering business innovation
Technology	No formal strategy or execution on technology investments	Basic management tools; no formal infrastructure hardware or software standards	IT support and project-related management tools; desktop hardware/software standards defined; begin infrastructure standardization/rationalization	Formal infrastructure standards and policies; process and domain-centric management tools; virtualization foundation in place	Formal IT management process/tools architecture; shared services; aggregated capacity management	Proactively promoting new technologies and impact to business; real-time infrastructure
Business Management	No formal IT business management functions	Very little outside of budgeting	Project management office	Financial management, formal key performance indicators	IT service cost metrics, competitiveness	Business contribution metrics
Level:	0	1	2	3	4	5

Source: Gartner (October 2007)

I&O maturity levels will differ across industries, enterprise size and business strategies. Table 1 is an estimate of I&O maturity at each level, with a prediction of progress by year-end 2012.

Table 1. I&O Maturity Level Estimates for 2007 and 2012

Timeline	Survival	Awareness	Committed	Proactive	Service-Aligned	Business Partnership
12/2007	<2	45	30	15	8	<1
12/2012	<2	30	35	21	12	<2

Source: Gartner (October 2007)

Associated planning assumptions include:

- By year-end 2012, only 35% of I&O organizations in large enterprises will have achieved proactive or higher levels of I&O maturity; this is up from fewer than 25% in 2007.

- By year-end 2012, fewer than 14% of I&O organizations in large enterprises will have achieved service-aligned or above; this is up from fewer than 9% in 2007.
- By year-end 2012, fewer than 2% of large enterprises will have achieved the business partnership level of maturity.
- By year-end 2012, the awareness level of I&O maturity will drop by one-third.

Using the I&O Maturity Model

I&O leaders should use this model to assess each of the I&O maturity dimensions — people, process, technology and business management. I&O leaders can then identify projects that would take them forward to align the dimensions at a particular level or to move forward to the next level of maturity.

Moreover, as they move up in maturity toward becoming an internal IT service provider and the elusive business partnership level (focused on business innovation), they also must manage the business of IT differently and more cohesively. This requires that they manage all the business functions that are required of their business customer counterparts, including product management, marketing, business development and cost accounting.

RECOMMENDED READING

"ITIL v.3 Services Guidelines Expand Audience Through Update"

"Gartner Poll Suggests IT Management Processes Aren't Maturing"

"Toolkit: Improve Business Alignment Using the IT Management Process Maturity Model"

"Gartner Introduces the Infrastructure Maturity Model"

REGIONAL HEADQUARTERS

Corporate Headquarters

56 Top Gallant Road
Stamford, CT 06902-7700
U.S.A.
+1 203 964 0096

European Headquarters

Tamesis
The Glanty
Egham
Surrey, TW20 9AW
UNITED KINGDOM
+44 1784 431611

Asia/Pacific Headquarters

Gartner Australasia Pty. Ltd.
Level 9, 141 Walker Street
North Sydney
New South Wales 2060
AUSTRALIA
+61 2 9459 4600

Japan Headquarters

Gartner Japan Ltd.
Aobadai Hills, 6F
7-7, Aobadai, 4-chome
Meguro-ku, Tokyo 153-0042
JAPAN
+81 3 3481 3670

Latin America Headquarters

Gartner do Brazil
Av. das Nações Unidas, 12551
9º andar—World Trade Center
04578-903—São Paulo SP
BRAZIL
+55 11 3443 1509