





Future State of IT

A Vision and Design for IT and Service Management

WE LIVE in a service economy.

Every dollar you spend today is for a service. When you buy a cup of coffee, pay your utility bill, or book a flight to Hong Kong, you engage in the service economy.

This economy is based on a simple principle: services deliver value, and the value is measured in monetary terms. This principle permeates the business environment at every level, across virtually all value chains. A service provider and service consumer establish an agreement that carries implicit value, which is ratified through the exchange of currency.

Simply said, the consumer pays for services that they perceive to be valuable.

For those of us that live in the world of enterprise IT, this begs some interesting questions: Is IT in the service business? How does IT really deliver value and accelerate growth? What are the measures of this value?

HP sees that the enterprise IT market is now at an inflection point. In the past, the IT function was about managing people, process, and technology. Going forward, the curve changes. IT now manages business value, and this value is designed, built, and delivered in the form of technology-enabled services.

The opportunity for the enterprise and the IT organization is to recognize that, really, everything is a service, and every service must be designed to forward the strategy of the business.

IT now must join the rest of the service economy. Just like an international coffee franchise, just like an airline.

In HP's view, there is now sufficient awareness, maturity and momentum for IT executives to deliver technology-enabled services that directly impact top and bottom line results—business outcomes.

To do so, the right environment needs to be in place; an ecosystem designed to move services through their lifecycle quickly, and to deliver value reliably.

The illustrations in this document depict the environmental design that will carry us into the next generation of enterprise growth. It's an end-state design that we call the service management ecosystem. It illustrates how IT operates when everything is a service, and every service is designed to forward the growth of the enterprise. Ultimately, it's a blueprint that shows how IT delivers on shareholder value.

HP designed this ecosystem as a way to help IT executives manage this new opportunity. But also, to help IT inform other executives in the business about how IT really operates, so that they understand just enough about the inner workings of IT to actively participate in technology-enabled business breakthroughs.





The Two **Business Outcomes**

Make money, save money

THE BEGINNING of this story starts with the end in mind: the business outcome. Simply said, a business outcome is the natural result of the services that an enterprise offers its consumers. And with these services, be they a cappuccino or an online flight booking, the business outcome is always expressed in terms of value. In fact, any service can be measured by the value it creates for the enterprise, either at the point of revenue generation (a "make money" outcome), or at the point of internal cost efficiency (a "save money" outcome). Other outcomes such as risk mitigation, customer satisfaction or time to market, are derivates of these two.

The value, whether positive or negative, is not an abstraction. It's a numeric expression that has an effect on the profit and loss statement, and therefore shareholder value.

It's important to note that in retail and some other industries, it's tempting to think that the outcome is the sale of goods—that is, a product-centric outcome. But looking closer we find that the real outcome is much more complex. It is actually the service of delivering a mix of espresso, syrup, steamed milk, and providing a café environment complete with friendly barista. The business outcome's ultimate value is not tied to the goods sold, but to a mix of goods and activities that manifest in a service—the cappuccino.

In an enterprise, the value conversation happens between critical corporate functions and lines of business, steered by the executive committee. They participate in developing a strategy that will govern the entire organization towards achieving their intended outcomes.



GROWTH The "Make-Money"

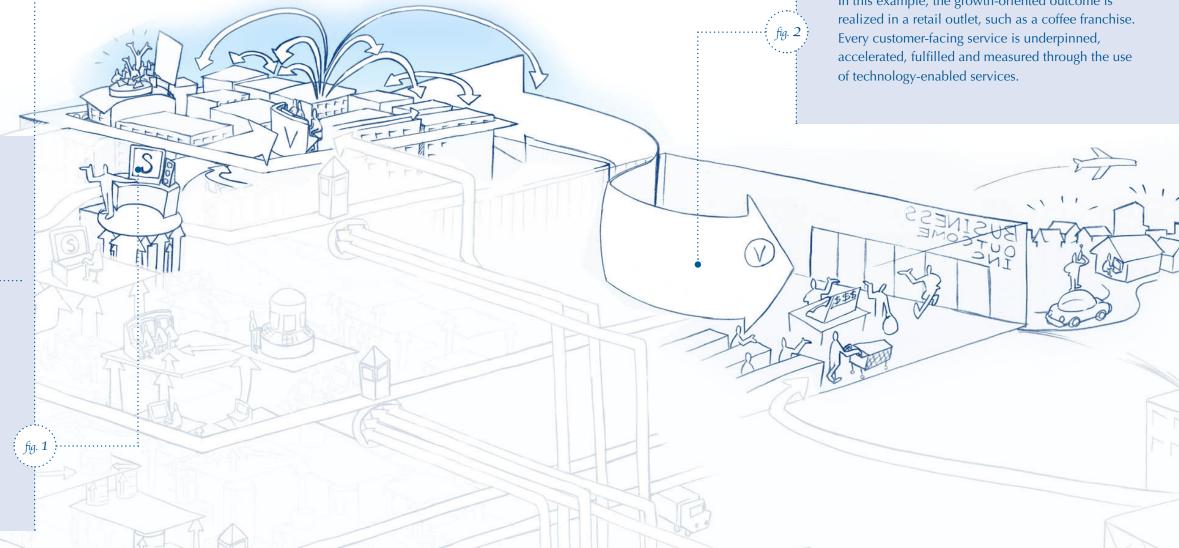
In this example, the growth-oriented outcome is realized in a retail outlet, such as a coffee franchise. Every customer-facing service is underpinned, accelerated, fulfilled and measured through the use of technology-enabled services.



EFFICIENCY

The "Save-Money" Outcome

Automation is the linchpin of successful corporate efficiencies. The deeper the understanding of the business strategy, the sharper IT can focus on exactly how to execute with the least possible resources applied. IT's traditional role is to automate processes, but in addition, IT-provided services can be applied to new innovations that drive new levels of efficiency.





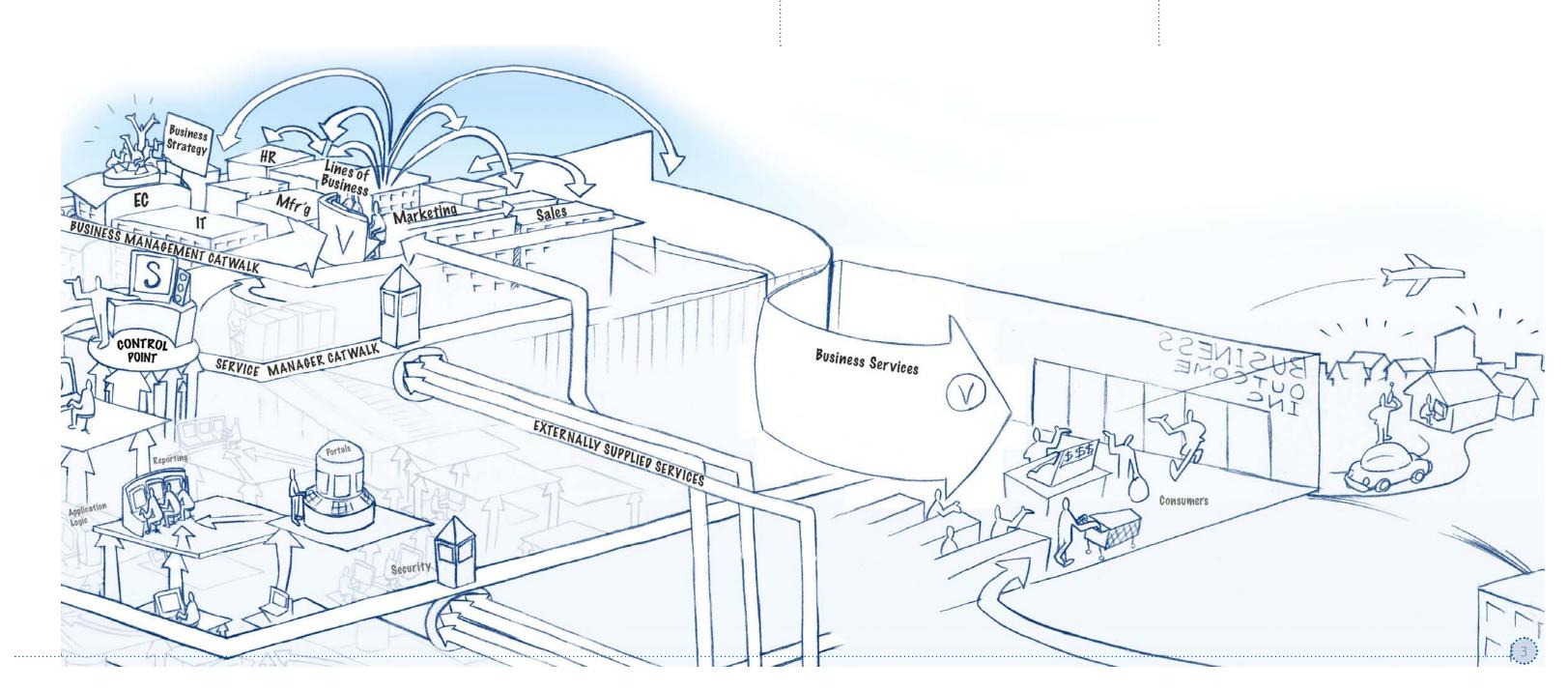
The Business Strategy Calibrates to the Business Outcome

Whereas any particular business strategy might be unique to an industry, and even more specific to a discrete organization that competes on, say, price or volume, the dynamic is the same. The business strategy is in constant calibration with the actual outcomes, such as how the company makes money, improves margin, and differentiates from its competitors.

In this end-state picture, IT is an active participant in setting the business strategy along with sales, manufacturing, finance, and other business functions. After all, it's the application of technology to the strategy which will determine the margins of success.

As we'll see in the next pages, the business strategy decisions have a direct impact on how IT organizes itself to meet the demand and supply around this strategy.

For example, a bank may focus its service portfolio on loan instruments designed to compete on volume, resulting in lots of quick, high-risk contracts. Another bank might decide that a better strategy is to closely guard its risk profile, and take fewer loans that yield a safer, albeit lower return.





IT Calibrates to the Business Strategy

AS WE LOOK under the hood

Once the business strategy is ratified by the executive committee, the IT strategy can take form. It will do so through an enterprise architecture for IT that serves as the structural guidance system to ensure the right design can meet with the right execution.

The enterprise architecture for IT has a broad scope. It is chartered to enable the right response to supply and demand signals from

the business, and establish the underpinnings of governance. It is also designed to respond to external suppliers and anything relating to the people, the processes, and the technology powering the business.

And whereas an architecture might be seen as solid and inflexible, in fact it must be able to flex and scale while maintaining stability in design and control. Because an enterprise

strategy can change on a dime, so too must IT be able to re-calibrate for change. As a recent example, the volatile US mortgage environment has demanded that banks have the flexibility to restructure their services to manage defaults, and to shift the business strategy to a low-risk approach.

The flex points in our ecosystem show up as four distinct service layers, managed through provider-consumer relationships within the walls of IT.

LAYER 4.

IT-provided Services

This is the IT-provided service layer, that which delivers value to the other business functions. The service is packaged so that it can be used without the consumer incurring the specific risks or costs associated with its components.

It is this IT-provided service that must calibrate to a specific business outcome, and to a specific value associated with that outcome.

LAYER 3.

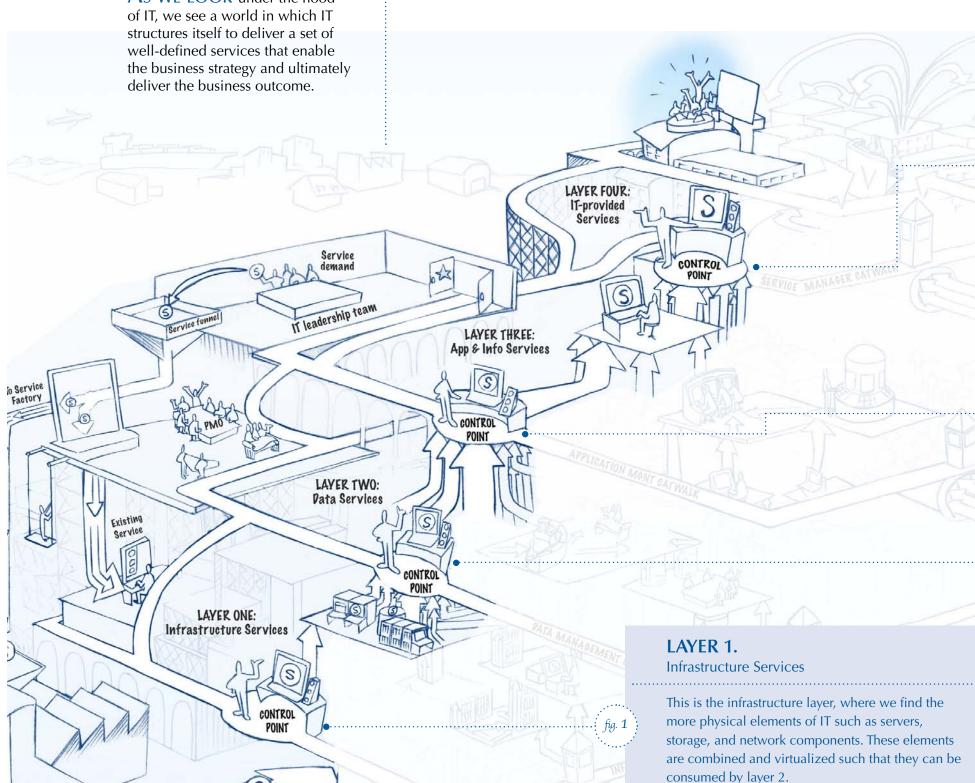
Application & Information Services

This is the application and information layer. Business logic and information (synthesized data) reside here, as well as the customer-facing elements of business applications. Functional requirements from the lines of business typically drive the output of this layer.

LAYER 2.

Data Services

This is the data services layer, where data is stored, managed, moved and transformed. This layer typically includes database management systems, EDI, and middleware platforms that are consumed by layer 3.





Services are Insourced and Outsourced

THE SERVICE LAYERS are stratified to separate concerns of role, management, sourcing, and value. It allows IT to be nimble and responsive as a whole, while operating semi-autonomously, yet fully responsibly, within each individual layer.

The ultimate goal at each layer is to combine the right resources to produce a value-added service directly to its consumer–typically the next level up. And conversely, each layer consumes services from below or externally, and combines these with their own assets, capabilities, and resources to add (and thereby realize) value.

LAYER TWO:

Pata Services

LAYER ONE:

Infrastructure Services

LAYER FOUR: IT-provided Services

ATA MANAGEMENT CATWALK

Security

LAYER THREE: App & Info Services

CONTROL

POINT

It is this service provider-consumer relationship that allows IT to organize itself in a way consistent the with the larger service economy. It also sets up a frame of reference for designing and executing on agreements and contracts between various constituents.

SERVICE MANAGER CATWALK

EXTERNALLY SUPPLIEP SERVICES

Moreover, deliberately stratifying the service layers allows managers of each level to have the fiscal and technical transparency they need in order to fully manage supply and demand on both sides of their supply chain.



Flexible, standardized, and capacity-based services can easily be sourced outside the firewall. Whether through the cloud, software as a service, or just simple data syndication, services must pass through a secure gate in a controlled manner.

COMBINING SERVICES.

EXTERNALLY SUPPLIED'S

Once it enters into the enterprise ecosystem, an outsourced service connects into the layer strata, and is combined with other assets, resources, and capabilities to add value.



Managing Services Layer by Layer

MANAGEMENT VISIBILITY AND CONTROL at each layer is paramount to ensuring efficiency and stability of the IT service portfolio. This manageability affects how IT arbitrates the costs, resources, and priorities of various design, development and operating options.

IT leadership team

Managers at the each layer must thoroughly understand the success criteria for each discrete service, as well as the cost and value it provides to the business. Like factory managers on a galley or 'catwalk,' managers oversee the various aspects of each service being provided to the next layer up, and make sourcing decisions around those being offered from below. By attaching an economic cost and value to this critical exchange, managers can make quantitative and qualitative evaluations about the services provided and consumed.

CONTROL

With clear delineation between various service layers, functional business leaders can finally see why each request from IT can have such a ripple effect throughout the ecosystem. It becomes obvious that every project or service must be considered in terms of how it is produced through each of the multiple layers in the ecosystem. This unmasks the mystery around how even small changes to services can have enormous consequences for the business.



SUPPLY/DEMAND DECISIONS

It's at each control point that decisions are made around service supply, demand, quality and value. This is aided through industry-standard data to help the manager make the best possible decision on whether to continue to source services internally or externally.



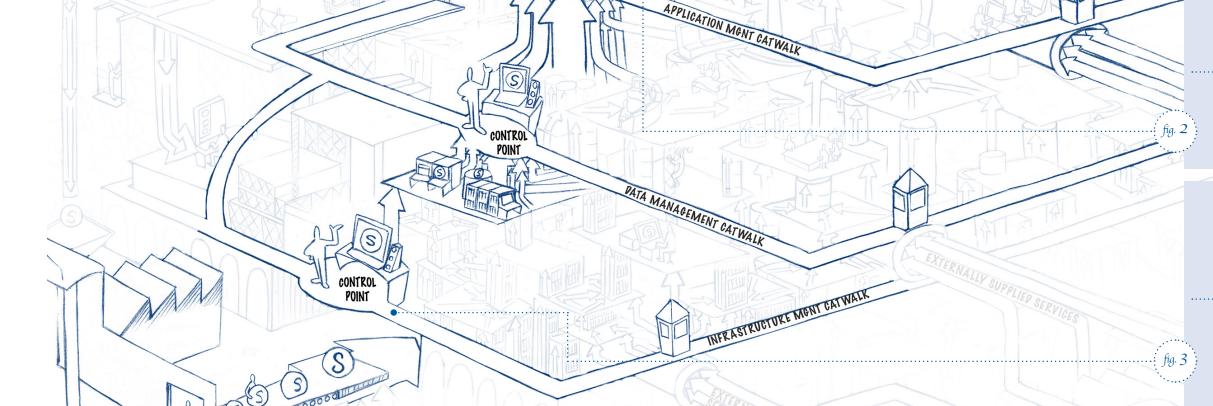
IT EXECUTIVE VISIBILITY

At the broadest level, IT executives looking at the whole multi-layer dynamic can make decisions about the value and performance of each service offering or service portfolio.



MANAGEMENT CONTROL POINTS

Layer managers decide to consume services produced internally or externally. For them, the focus is the business value of the service they are consuming, and not assuming specific risks or costs of those consumed services.



CONTROL



The IT-Provided Services Deliver Measurable Value

NOW THAT WE'VE LOOKED at the general structure of how services are produced and consumed through the levels, let's look at what happens when IT provides its service to the business.

Delivered through a service catalog, business users can subscribe to services and use them to address very specific business outcomes. These services range from the more standard, operational services—such as employee on-boarding, email, application testing, credit check—to highly specialized services, such

as loan origination, coffee futures analysis, or sales pipeline forecasting.

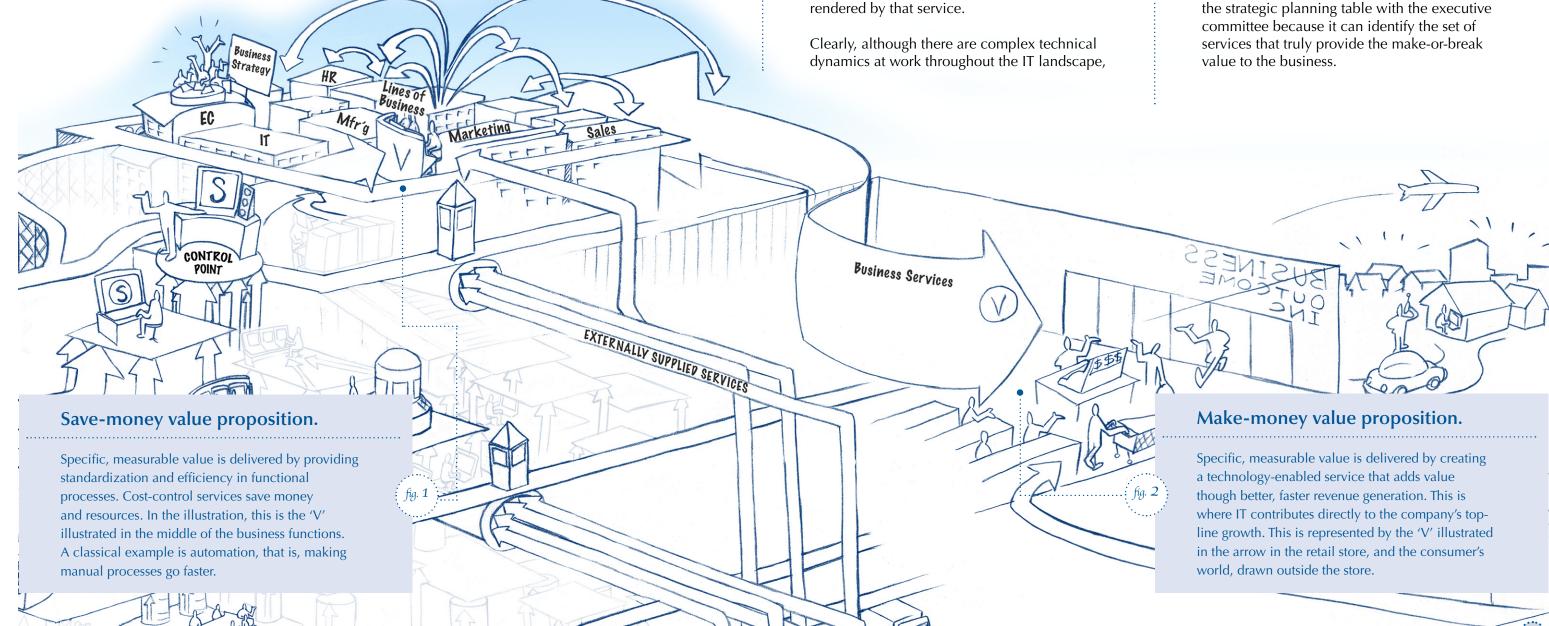
Regardless of its specific intended outcome, each IT-provided service is directly linked to value, at either the cost or revenue side of the equation—sometimes both. In this sense, the IT-provided service becomes the economic unit of exchange between IT and the rest of the business.

The value-driven service dynamic, which plays out through the provider-consumer relationship, is a fundamental distinction found throughout the service economy. A service consumed provides value in large part because the consumer does not inherit the specific risks or specific costs of the service. They must only recognize and be willing to pay for the value

HP believes that the foremost value of IT is its ability to directly impact business outcomes through managing the value of each IT-provided service. IT executives who understand the numerical value of a technology-based service in relation to the business outcome can better influence the business strategy, and drive the business towards growth.

For example, a financial institution can see the direct correlation between loan batch processing speeds and the financial implication of the closed loans. The bank also knows the exact numeric value of the internal and outsourced services it ultimately employs to deliver its loan services.

For this reason, it's important to include IT at





The Big Picture

IT Drives the Service Economy

AS WE LOOK across the entire ecosystem, it's clear that IT plays a more critical strategic role than in the past. Whereas we used to talk about IT being aligned with the business units, with the underpinnings of the service management ecosystem, IT is now directly producing value that the business consumes.

The optimal business/IT alignment comes when the entire IT ecosystem is designed to deliver business outcomes from the very start. This means that the shift needs to move towards a higher order of alignment. That is,

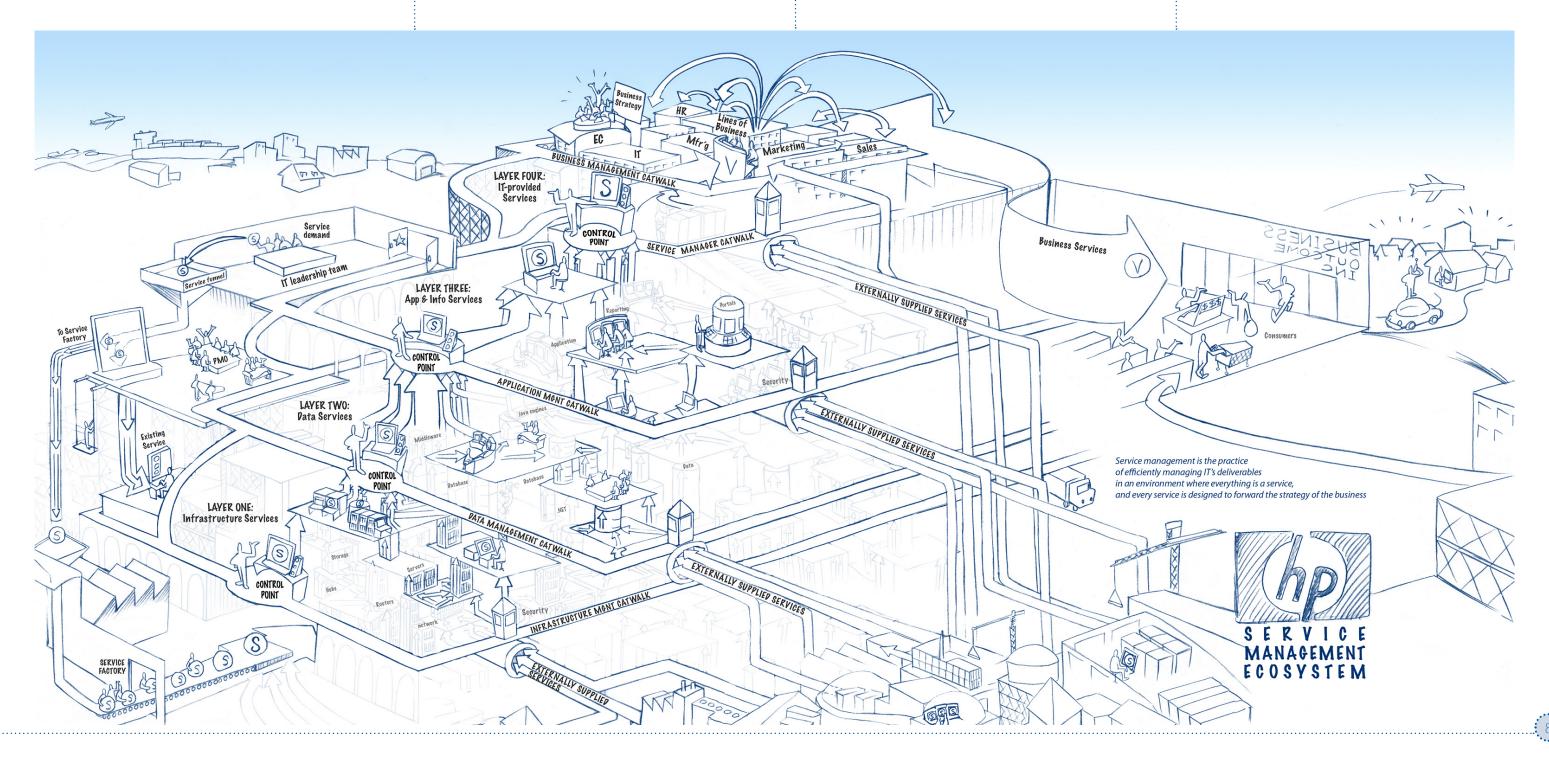
aligning the services with the outcomes—the rest will follow.

We think this works best when IT operates as a strategic member of the business, and participates with the executive committee to design services that support the current and future delivery of business value.

By focusing on business strategy and business outcomes, IT can define, measure, and deliver the most valuable services to drive the business forward. This is because IT contributes to

understanding the nature of the business, the value of core business processes, how the business makes its money, and the longer-term view of how IT enables business growth.

With a well-defined service management ecosystem IT can accelerate business growth by creating a flexible environment to execute on the business strategy and deliver business results. Be they new market expansion, mergers and acquisition, or new product innovation, IT powers the business, and the service management ecosystem sets this in motion.



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