



## A path to improving the end-user experience

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TABLE OF CONTENTS

- EXECUTIVE SUMMARY . . . . . 1
- STEPS TO END-USER ENABLEMENT . . . . . 2
- END-USER ENABLEMENT ACTIVITIES. . . . . 2
  - » Support . . . . . 2
  - » Social enablement. . . . . 3
  - » Security and resilience . . . . . 3
  - » Productivity . . . . . 3
- END-USER ENABLEMENT OBJECTIVES AND VALUE . . . . . 3
- USING THE INFORMATION IN THIS DOCUMENT . . . . . 7

## EXECUTIVE SUMMARY

The consumerization of IT has contributed to a sharp rise in the expectations that end users have for IT services. They want their technology at work to be as unobtrusive and effective as the technology they use in their personal lives. Increasingly, they also bring their own devices to work. As end users become more empowered, their influence on how IT services are chosen, delivered, used, and evaluated will continue to grow.

IT organizations need to understand how their end users use IT to help the business become more effective and productive, as well as to provide quality services. What does *understanding* the users really mean, and what needs to be done to make them more productive? Most IT organizations assume that making the IT infrastructure more reliable, higher performing, and agile will result in higher end-user satisfaction, yet this is not how end users evaluate their IT experience. They want access to IT services when they need them, no matter where they are located or what device they are using.

Enabling the business requires having an understanding of the end user's IT experience and then plotting a path to improvement. For many organizations, this is a challenge, as there is little insight into how people actually use IT beyond the limited visibility provided through the lens of the service desk. However, end-user productivity requires a lot more than problem management and incident management.

What does it take to keep end users happy and productive? You need an understanding of how IT is consumed and the tools to make the user's involvement with IT as seamless and productive as possible. To help with this challenge, we have established a set of IT management goals, objectives, and associated end-user values. There are five levels on the path to end-user enablement: *undefined*, *reactive*, *proactive*, *service*, and *business*. These levels provide clearly defined objectives, allowing IT organizations to assess their current end-user environment and plot and measure improvement. Measured against the levels are support, social enablement, and security and resilience, as well as productivity. By focusing on improving the end-user experience via the path described in this paper, IT organizations can help the business stay competitive by increasing end-user satisfaction and productivity.

## STEPS TO END-USER ENABLEMENT

The end user is rarely factored into strategies and initiatives for increasing IT effectiveness. Whether a company has decided to own its IT or to have it managed by a service provider, IT's impact on the end user cannot be ignored.

The end-user experience has become the yardstick many IT organizations use to measure the quality of their IT services. However, many still rely on traditional, datacenter-centric approaches to understanding the end user, primarily by using the service desk and desktop management tools. These methods provide visibility into reported issues and devices under the control of IT, but they offer only sample experience data and can be classified only as rudimentary end-user enablement. The goals of end-user enablement are to remove IT barriers, enable collaboration among users, promote awareness and self-sufficiency, allow users to interact with IT no matter their location or device, provide proactive support to ensure service quality, and deliver IT services in line with security and privacy policies.

The ability to meet these objectives requires an approach that establishes the current state and provides a plan of action. The action plan should establish end-user support approaches and traditional thinking, and should be broken into four activity areas:

- » Support
- » Social enablement
- » Security and resilience
- » Productivity

Unlike IT operations initiatives of the past, end-user enablement already has momentum, driven by users who continue to do whatever they can to increase the quality of their IT experience. This includes the adoption of new devices, externally sourced applications, and on-line social collaboration with colleagues and IT communities. For end-user enablement to be beneficial to the business, it will require close collaboration between IT operations and the end users. The value of an end-user enablement strategy has two perspectives: that of IT operations (the enablement provider) and that of the end user.

## END-USER ENABLEMENT ACTIVITIES

The grouping of end-user objectives creates the four activity areas of support, social enablement, security and resilience, as well as productivity. Each area can be approached individually. However, the more sophisticated end-user enablement becomes, the greater the need for each area to support and enhance the others.

### SUPPORT

**Objective:** *End users are empowered to identify, address, and report common/local issues, pre-emptive problem management, and real-time end-user IT status specific to their individual needs and priorities.*

Support includes providing the services needed to communicate and track problems and enables the end user to become proficient in getting answers, guidance, and instructions for issues where they can support themselves. This is an area where IT organizations are required to become more proactive in understanding how users consume IT services. This can move many organizations from a trouble-ticketing environment to a business analysis function, where trends and behaviors are analyzed to actively seek out potential issues the same way IT security officers actively look for potential breaches in security.

Empowering the end users allows them to fix common problems without engaging IT support, enabled through the use of online guidance, online content (e.g., manuals), problem reporting (e.g., status of open problems), crowd-sourced information (including real-time status of other users through shared experience input and analysis), and automated recovery procedures. When end users require the help of IT, the process is streamlined through the ability to report issues using one-click methods and location services. Examples of these methods and services include reporting of a printer problem by combining the printer name with other available information based on the location of the end user and access to a repository containing the printer's information.

## SOCIAL ENABLEMENT

**Objective:** *End users are provided social, communication, and collaboration tools to foster and enable information flow among different users with common interests, goals, and objectives.*

Today's end user is social, collaborative, and mobile. Social enablement provides methods of communication that aid, support, and promote collaboration, teamwork, and information sharing. Social collaboration at work can benefit the users and increase business efficiencies. Social enablement includes the use of communication tools (i.e., instant messaging), community blogs, and more. Corporate control and enablement of these types of tools ensures that information is freely passed in a secure manner while providing the freedom to discuss company topics from any device and location.

## SECURITY AND RESILIENCE

**Objective:** *This includes end-user and device authentication, content protection, and data protection and recovery.*

Security and resilience are the foundation of any strategy designed to enable end users to access the network and allow them to use mobile devices for business purposes. Security and resilience include access and authentication (e.g., on a mobile device or to corporate applications) and content management (e.g., ensuring corporate content is secure and protected from loss or malware).

## PRODUCTIVITY

**Objective:** *Users are permitted to use their own devices for business from any location. Users download and are given access to applications and local resources and information on company facilities based on their specific needs and company policy.*

End-user productivity is enabled by providing access (no matter the device or location) to the applications and material needed for individuals to do their jobs. IT barriers, such as reporting issues and gaining access to office networks and printers, are removed through software on users' devices and by integration with the local IT environment and facility systems. Logical separation of content and applications allows people to use devices for both personal and business purposes. Software is deployed and updated, either by company policy or at the demand of the end user.

## END-USER ENABLEMENT OBJECTIVES AND VALUE

A plan of action requires a set of logical steps and a starting point. The following chart breaks the steps into five maturity levels: *undefined, reactive, proactive, service, and business*. Each step contains aspects of the four activities: support, social enablement, security and resilience, and productivity. Lastly, the activity and the resulting values are split between IT operations and the end user. By following this path, as shown in Table 1, IT can move up in maturity levels for end-user enablement. Table 1 continues on pages 4 through 6. See page 7 for details about how to use the information covered in Table 1.

ACTIVITY AREA	STATE LEVELS				
	As you move up from one level to the next, each successive level includes the benefits of the previous levels as well the additional benefits cited below.				
	Undefined	Reactive	Proactive	Service	Business
<b>SUPPORT</b>					
<i>IT Operations Perspective</i>	IT has no understanding of the end-user IT experience.	<p>End-user (business) visibility is gained through service desk activity and discussions with users.</p> <p>User satisfaction is evaluated with metrics from the service desk.</p>	<p>Through the use of end-user applications monitoring tools, in-house application activity is monitored and augmented with discussions with end-user (business unit) management.</p> <p>Using social/collaboration tools, the service desk, and user productivity tools, the users receive information on the basic state of their specific IT resources.</p>	<p>Using end-user activity monitoring tools and behavior analysis, user activity is understood in real-time with satisfaction monitored in line with IT services usage and against service levels, irrespective of how the user chooses to access IT and the location of the applications being used. If required, this information is correlated with in-house datacenter applications' status information provided by infrastructure and application performance management (APM) tools.</p> <p>Crowd-sourced, enabled tools provide the ability for end users to report issues or add details to known conditions.</p> <p>End-user self-help capabilities provided through crowd-sourced APM tools, on-line help, support guides, and documentation (provided via end-user activity monitoring, content lockers, and search-based tools).</p> <p>Through the use of user productivity tools and IT resource mapping, location services, and integration with the service desk, one-click problem reporting is enabled, allowing users to report (and track) problems with a minimum level of effort.</p> <p>End-user activity and behaviors leveraged by the service desk transform it into a business intelligence system.</p>	Using the crowd-sourced, end-user activity monitoring tools, the end-user experience is measured against overall application sessions, irrespective of where the application is sourced or the device is used (e.g., not on a specific application engagement or a specific device).
<i>End-User Perspective</i>	End users are frustrated with IT support due to unresponsiveness and an inability to support their needs.	<p>End users use the corporate service desk to report issues.</p> <p>Users collaborate with colleagues and use search tools and social media for advice and guidance on issues.</p>	<p>Support is enhanced with online documentation, problem identification, problem-resolution guidance, and open-ticket status.</p> <p>Basic end-user initiated recovery procedures are used to address common issues.</p>	<p>Support is provided in-line with device used and location.</p> <p>Crowd-sourced support tools allow end users to add insight and context to issues being experienced, which are then analyzed with other input, providing an end-user view of the IT experience.</p> <p>Crowd-sourced support tools (through a local agent monitor) enable users to understand how IT is affecting them and their colleagues for all applications, irrespective of the source.</p> <p>Service improves by leveraging location services and one-click reporting of issues on the IT device (including office resources, such as printers, copiers, and OHP devices).</p>	<p>Ongoing improvements made to integration with facility and office systems (e.g., integration with office movement detection systems allow personnel to understand where people are and if rooms are occupied).</p> <p>Advanced recovery procedures are used to address issues specific to the user or user applications.</p>

**Table 1.** End-user enablement path

ACTIVITY AREA	STATE LEVELS				
	As you move up from one level to the next, each successive level includes the benefits of the previous levels as well the additional benefits cited below.				
	Undefined	Reactive	Proactive	Service	Business
<b>SOCIAL ENABLEMENT</b>					
<i>IT Operations Perspective</i>	No company social enablement occurs.	Awareness exists of external social tools being used for company business. Plans are initiated for providing/endorsing social enablement tools.	Company-sanctioned social media, communication, and collaboration tools ensure separation of personal and business use, allowing end users to be made aware of company information, with groups/teams sharing information of common interest.	A social media platform enables collaboration among teams, focus groups, and organizations, providing business-related information and automatic discovery of local points-of-interest, people, resources, and support organizations.	Increased social media enablement occurs.
<i>End-User Perspective</i>	Users communicate via public collaboration, social media, and communication tools for business matters.	Users continue to use public collaboration, social media, and communication tools for business matters.	Users are provided with company-sanctioned social collaboration and communication tools, enabling collaboration among teams, focus groups, and organizations.	Users augment their social tools with access to local communities and information based on their location.	Increased social media enablement occurs.
<b>SECURITY AND RESILIENCE</b>					
<i>IT Operations Perspective</i>	No policy exists for securing company content outside the corporate data center.  No backup of company data on local user devices takes place.	No security policy is in place for users' local devices.	Data stores are protected with a rights access policy.  Company data is backed up on local user devices.  Data on devices is automatically wiped and/or the device is initialized upon being stolen or lost.	Security tools are used to ensure access to IT content is provided in line with corporate policy (e.g., location, device used).	IT content access is enhanced (e.g., including permissions on report information and the time data is accessed).
<i>End-User Perspective</i>	Users use private devices and noncorporate cloud services to pass and store corporate information and material.	Local device support is the responsibility of the end user.	Data store information is provided to end users that meet security policy.  Users are protected by business-related content that is secured and automatically removed upon a security issue being reported/detected (e.g., loss of a device).  Business-related content is secured and automatically removed upon a security issue being reported/detected (e.g., loss of a device).	Location and device deters a user's access rights to company material that the user is not entitled to access.	User's access rights are enhanced (e.g., granular permissions and time).

Table 1. End-user enablement path (continued)

ACTIVITY AREA	STATE LEVELS				
	As you move up from one level to the next, each successive level includes the benefits of the previous levels as well the additional benefits cited below.				
	Undefined	Reactive	Proactive	Service	Business
<b>PRODUCTIVITY</b>					
<i>IT Operations Perspective</i>	IT operations has no visibility into end-user activity.	No policy exists on how mobile devices can be used when accessing business applications and content.  Limited support is available for mobile devices.	A BYOD strategy is initiated, with limitations on the devices supported and the access allowed/supported.  Using MDM and end-point monitoring tools, mobile devices are supported (configuration, software, and basic activity).  Corporate data stores are created to allow the pooling of business material.	Bring your own device (BYOD) is fully implemented (coverage of all leading mobile devices).  Leveraging service catalogs/marketplace tools, the users are able to choose what applications are needed, updated, or changed to support their specific job function.  Content locker provides access to business documentation and Web applications, no matter what devices are used.	End-user activity is understood, enabling highly effective service support, change planning, and change impact analysis.  Integration with non-IT systems allows end users to interact with their office environment more efficiently.  Business and business-sanctioned applications are provided through a corporate marketplace.
<i>End-User Perspective</i>	Access to corporate IT resources is limited to specific devices and locations.	End users are granted use of and limited support for specific mobile devices.	Corporate, cloud-based data stores allow end users to store shared content safely.  Users are permitted to use a range of devices (BYOD).	Applications are provided on-demand/request.  Location enablement allows resources to be found and identified with users automatically gaining access to IT resources local to them (e.g., printers, wireless networks).  Business and personal applications are segregated, allowing the end user to easily separate content.	Users receive live updates on the health and availability of their business applications with their location and device taken into account.  Users are able to interact with the facilities systems (including non-IT), which provide map-based office information (e.g., office locations, office occupancy status).

**Table 1.** End-user enablement path (continued)



## USING THE INFORMATION IN THIS DOCUMENT

Improving the end-user experience by moving up to higher levels of user enablement helps organizations to meet the challenges of new business realities, innovate through new services and delivery models, optimize the value of IT services, and deliver a great experience to enterprise consumers.

One area where BMC has improved the end-user experience is with MyIT ([www.bmc.com/products/myit/it-self-service.html](http://www.bmc.com/products/myit/it-self-service.html)), which gives users the ability to access and view their status, as well as to interact with apps and services and report issues. Employees have easy access to the services they need — anytime, anywhere, and from any device.

For more information about end-user experience management, visit [www.bmc.com/products/euem/end-user-experience.html](http://www.bmc.com/products/euem/end-user-experience.html).

### **About the author**

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