CREATING A USER-CENTRIC IT ROADMAP

Best Practices Guide for IT Teams and Executives
The businesses that are most successful today also tend to be the companies that consumerize in-house technology. At these organizations, employee interactions with data and documents often mimic, and sometimes mirror, the experiences that are enjoyed outside of work. From apps (how content is consumed) to access (what, where and when it’s retrieved), employee expectations have evolved to include modernized technology that supports better work-life balance and “anytime, anywhere” connectivity.

But what does a user-centric organization look like in practice? How can companies effectively keep pace with consumer-grade technology, which is typically tied directly to revenue, and still reap financial benefits of intangibles such as reduced turnover and increased productivity?

Years of conclusive research bears out three primary building blocks for user-centric IT:

1. User Need
   Putting employees at the center of every major IT decision is the foundation for user-centric systems. Once you understand where, when and how users prefer to work, it becomes much easier to design scalable solutions.

2. User Experience
   The best way to ensure a smooth employee experience is to map it out. This is also the time to think about replacing outdated methods like help-desk tickets with more open, chat-style communications.

3. Self Sufficiency
   When you set the stage for independence, both IT support and user productivity are maximized. The more intuitive the app or process, the more engaged employees will become.

Working together, these three components are the key to unlocking the full potential of workplace technology.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>p. 4</td>
</tr>
<tr>
<td>3 Signs It's Time For a New IT Roadmap</td>
<td>p. 6</td>
</tr>
<tr>
<td>Best Practice #1: Understand Needs</td>
<td>p. 8</td>
</tr>
<tr>
<td>Best Practice #2: Map Out the User Experience</td>
<td>p. 11</td>
</tr>
<tr>
<td>Best Practice #3: Set the Stage for Self-Sufficiency</td>
<td>p. 13</td>
</tr>
<tr>
<td>Conclusion</td>
<td>p. 15</td>
</tr>
<tr>
<td>Sources</td>
<td>p. 16</td>
</tr>
</tbody>
</table>
INTRODUCTION

Creating a User-Centric IT Roadmap

A short time ago in a workforce far, far different from today’s, employees were bound to their desks by ethernet cables. Each weekday they came, they saw, they conquered tasks. Then they drove home and watched their offices disappear in their rearview mirrors.

Those days are long gone. Today’s workforce operates in a state of constant connectivity with WiFi, broadband and Bluetooth technologies that allow access to all kinds of data and documents. At any hour or location. On all kinds of devices, from laptops and tablets to smartphones and even “smart” appliances and accessories. Folks often turn pocket-sized PCs into hotspots and wear digital apps on their wrists. They download new and innovative tools daily, and they’re accustomed to lightning-fast load times.
INTRODUCTION

These are the kinds of agile interactions people expect from their workplaces.

Embracing the ever-increasing trend toward user-centric mobile workspaces isn’t just a key to business growth. It’s quickly becoming the way to ensure success.

To stay relevant and keep employees engaged with work on a meaningful level, your IT systems must be structured to meet people where and when they are at all times. In this guide, we’ll walk you through the three critical best practices and processes to achieve a “consumerized” work environment—one in which your IT isn’t just competing with consumer apps, but also setting new standards for tech-driven workspaces.

Numerous studies have shown how employees at user-centric organizations – particularly those that support remote access – tend to be more engaged and productive. For instance:

- Chinese call center employees equipped to work from their homes completed 13% more calls than in-office staff did.¹
- 46% of Americans report feeling more productive at work as a result of advancements in technology.²
- Business and IT leaders anticipating the use of smart technologies in the workplace predict a 33% increase in revenues over the next five years.³
3 SIGNS IT’S TIME FOR A NEW IT ROADMAP

Employee satisfaction surveys reveal frustration with technology

Staff is spending increasing amounts of time working outside the office

IT is continually updating code to support OS releases and other updates

Once upon a time, day-to-day IT help desk requests were relatively stationary and involved things like fixing desktop computers, fiddling with user settings and finding a new keyboard or mouse.
3 SIGNS IT’S TIME FOR A NEW IT ROADMAP

Not so today. A new generation of mobilized workforces creates new sets of challenges that can surface anywhere along very dynamic paths – ones that look drastically different from those of yesterday’s deskbound workers.

Now

Wake up. Immediately consult smartphone for push notifications that were sent while sleeping.

Commute to office. Ask digital assistant to read and reply to emails and texts and return voicemail messages.

Grab laptop. Head down the hall to take notes during the afternoon’s status meeting and edit documents at a nearby coffee shop before presenting to a client located two neighborhoods away.

Get ready for the day. Multitask by catching up on required corporate training videos via tablet in kickstand mode.

Power on desktop. Simultaneously fire up email, chat and calendar apps and then consult them all at once for the day’s activities.

Catch up on emails while unwinding with some TV. Connect to the network via VPN to send/receive emails and access corporate content.
BEST PRACTICE #1: UNDERSTAND NEEDS

Where do employees feel they’re at their most productive? Which apps do they prefer? How do they arrange their workspaces for maximum efficiency, and how often do they actually sit at desks? To be effective, you will need to first answer these questions and many others like them. Gaining a deep knowledge of different work styles throughout your organization will allow your IT team to customize a plan that maximizes productivity and minimizes security risks.

Although implementing this practice may seem simple on the surface, for many IT teams it’s anything but. However, there is a way to meet a variety of individualized needs without it turning into a high-stakes endeavor.

It all starts with employee personas. These fictional representations of real staffers are based on actual data and observation. They allow IT to more easily incorporate the needs of real people at the outset, which will help your organization:

- Reduce employee anxiety about new technology
- Match IT solutions more closely to staff needs
- Set the stage for long-term self sufficiency
Sample Persona: Matthew Manager

Key Characteristics
- Manages a marketing team of 12
- Travels 30% of the time
- Spends a third of his days in meetings

Tech Attributes
- Regularly upgrades his personal smartphone and tablet
- Early adopter of consumer apps
- Has been a beta tester of several marketing tools

Goals
- Help employees stay connected when working remotely
- Make his team as happy and productive as possible

Challenges
- An overwhelming number of apps to manage important info and files
- Security blocks on key communication tools

How We Can Help
- Aggregate disparate data and documents into one central platform
- Provide specialized productivity packages and security suites for use on the go

Not sure where to get the right data for employee personas?
Here are some ideas to get you started:
- Conduct surveys
- Take quick polls
- Analyze app usage stats
- Aggregate online company conversations
- Categorize help desk tickets
When creating your employee personas, it’s important that various teams, titles, personalities and levels of tech savvy are all represented. This will ensure your IT team produces the right suite of employee-centric solutions that meet actual needs—rather than assumption-based processes that are quickly abandoned or left largely unused. It may take a few weeks to aggregate and analyze all the right data and documentation, but it’s worth it.

Once you’ve completed this process, your personas can be used to create a comprehensive roadmap of user needs.
BEST PRACTICE #2: MAP OUT THE USER EXPERIENCE

Once you have a clear picture of the day-to-day “streets” employees are traveling, it often becomes relatively easy to determine which services need restructuring and what solutions can be consolidated. To get it right, however, IT will need to put those end users right back at the center of every decision.

After all, no amount of restructuring will benefit your organization if it fails to consistently deliver a smooth, seamless user experience (UX).

The best way to ensure a smooth employee experience is to map it out. There’s a lot to consider, so it’s crucial to ensure at the outset that everything will fit together seamlessly once you begin to modify and build.

Create a clear path that seamlessly connects all touchpoints, from the company intranet and social apps to content to communication and collaboration tools.

Remember: As you map out a UX plan for solid user experiences, this is the time to look for opportunities to devise two-way streets of communication - such as chat or mobile apps - that can replace outdated methods like email and one-way help desk tickets. And be sure to factor in all technologies your employees have become accustomed to using for work. An app that doesn’t work equally well across all operating systems and popular devices is an app that’s likely to be met with resistance.

The Atlas of Critical UX Factors

<table>
<thead>
<tr>
<th>TEST . . .</th>
<th>ACROSS DEVICES . . .</th>
<th>TO AVOID OVERWHELM . . .</th>
<th>AND ENSURE USABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the experience consistent across workspaces?</td>
<td>Does it adapt well to numerous screen sizes? Can it support mobile activities like walking and driving?</td>
<td>Does it require a minimum number of taps, swipes and logins to get to primary tasks?</td>
<td>Is it ergonomically sound? Is it discoverable?</td>
</tr>
</tbody>
</table>
BEST PRACTICE #2: MAP OUT THE USER EXPERIENCE

When planning for an optimal user experience across various departments, devices and workspaces, map out all tools and technologies using the checklist above. Be sure to account for all workplace interactions with technology—and not just those that have traditionally occurred in conference rooms and cubicles. Here’s a sampling of different digital communication elements to factor in:

<table>
<thead>
<tr>
<th>Interpersonal Communication</th>
<th>Team Collaboration</th>
<th>Social Engagement</th>
<th>Crowd Sourcing</th>
<th>Employee Networking</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>Audio-conferencing</td>
<td>Push notifications</td>
<td>Polling</td>
<td>Employee directories</td>
<td>Virtual desktops</td>
</tr>
<tr>
<td>Real-time messaging</td>
<td>Chat channels</td>
<td>Events calendars</td>
<td>Surveys</td>
<td>Rich profiles</td>
<td>Remote access</td>
</tr>
<tr>
<td>Video-conferencing</td>
<td>Manager tools</td>
<td>Employee engagement apps</td>
<td>Forums</td>
<td>Organizational charts</td>
<td>File repositories</td>
</tr>
</tbody>
</table>

Graphic created by Lenovo based on Gartner research: Unified Workspaces: The Convergence of the Mobile and End-User Computing Journey 29 January 2016
BEST PRACTICE #3: 
SET THE STAGE FOR SELF-SUFFICIENCY

A successful user-centric IT roadmap is one that empowers employees to self-enroll, self-provision and have access to automated configurations wherever possible.

In other words, the easier and more intuitive it is for staff to access and use company technology, the more productive and engaged they become. You provide the roadways; they route the journey.

There are several best practice steps you can follow to accomplish this.

1. Ease into adoption

Remember those personas? At this stage, they’ll come in really handy. You can use them to identify tech-savvy early adopters of consumer technology, then leverage those employees as beta testers within your own organization. This will empower you to fine-tune based on feedback before rolling out long-term methodologies... and ensure IT avoids wasting valuable time and resources creating solutions that aren’t scalable.

2. Tier out security

The mobility of today’s workspaces means different employees are accessing different data from various devices and location points. The security around such systems can create an IT nightmare. That is, unless you offer tiered levels based on use.

Tiering app and content bundles allows employees to subscribe to the services and security levels that best meet their various personal preferences and comfort levels. For example, a simple methodology for security bundling might look like this:

<table>
<thead>
<tr>
<th>What’s the appropriate service level for your end-user?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will their personal devices need to be enrolled and compliant?</td>
</tr>
</tbody>
</table>

3. Develop productivity packages

If there’s one IT certainty in today’s workforce, it’s that one size does not fit all. For this reason, it’s always a good idea to develop productivity packages for your various workplace personas.

Create Productivity Packages to Match Work Styles

<table>
<thead>
<tr>
<th>Productivity Packages</th>
<th>Thin Client</th>
<th>Desktop</th>
<th>Workstation</th>
<th>Notebook</th>
<th>21 - Hybrid</th>
<th>Tablet</th>
<th>Handheld</th>
<th>Display (Size/Number)</th>
<th>Docking</th>
<th>Smartphone</th>
<th>Feature Phone</th>
<th>Cellular Data</th>
<th>Card WiFi Pass</th>
<th>Desk Phone</th>
<th>Soft/VoIP</th>
<th>Headphones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deskbound 1</td>
<td>x</td>
<td>BYO</td>
<td>1x22”</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deskbound 2</td>
<td>x</td>
<td>BYO</td>
<td>2x24”</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondesk-bound 1</td>
<td>x</td>
<td>BYO</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondesk-bound 2</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondesk-bound 3</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared 1</td>
<td>x</td>
<td></td>
<td>1x22”</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared 2</td>
<td>x</td>
<td></td>
<td>1x22”</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>R</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

x = choose your own device (CYCD), corporate-owned, fully managed
BYO = optional, user-owned, semimanaged
R = ruggedized corporate-owned, fully managed

Source: Gartner (January 2016)
When looking at the road ahead, the long and winding road to creating user-centric workspaces may seem intimidating. But it’s well worth the journey, and the payoffs are practically priceless. Employees desperately want access to the same consumer-grade technology experiences at work that they enjoy in their personal lives. By giving them more opportunities to embrace work wherever and whenever they are, you will open the floodgates to efficiency, productivity, profits and personal fulfillment.

About the Team Behind This Report

**Lenovo Unified Workspace** empowers IT to deliver more flexible, agile and collaborative workplaces and meet evolving employee expectations. This workspace aggregation solution both modernizes and simplifies IT management by making it possible to deliver anytime, anywhere, any device access to public or private web-based apps, legacy Windows apps, remote desktops and file shares - all in a user-friendly, cost effective, web-based workspace.

**Lenovo** is a $46 billion global Fortune 500 company and a leader in providing innovative consumer, commercial, and enterprise technology. Our portfolio of high-quality, secure products and services covers PCs (including the legendary Think and multimode YOGA brands), workstations, servers, storage, smart TVs and a family of mobile products like smartphones (including the Moto brand), tablets and apps.
Sources

1 Harvard Business Review, Working from Home Experiment Shows High Performers Like It Better
   https://hbr.org/2015/01/a-working-from-home-experiment-shows-high-performers-like-it-better

2 Pew Research Center, Technology’s Impact on Workers
   http://www.pewinternet.org/2014/12/30/technologys-impact-on-workers/

3 Avanade, Smart Technologies are Delivering Benefits to the Enterprise—Is Your Business One of Them?

4 Gartner, Unified Workspaces: The Convergence of the Mobile and End-User Computing Journey
   29 January 2016