Optimizing for Change Using Remote Support
This HDI Toolkit is a series of practical “how-to” instructive job aids designed with the IT service management practitioner in mind. Each area of focus can be studied and used by itself, or as part of the whole. The Toolkit will help clarify the Shift-Left strategy, and address the increasing complexity of support at Level 1. It will also show how remote support can help relieve some of the pressure on frontline analysts.

**Focus 1: The Increasing Workload**

**Focus 2: Reducing Future Contact Volume Through End User Training**

**Focus 3: The Increasing Complexity of Level 1 Support**

**Focus 4: The Importance of Tool Integration**
**Increased Ticket Volumes**

According to the [2016 HDI Technical Support Practices & Salary Report](https://www.hdi.org/1215326), 57% of support organizations saw an increase in ticket volume over the past year. This follows a similar pattern to previous years, when up to two-thirds of support centers reported a ticket increase. The number-one reason cited for the increase—by 39% of respondents—was the “number of customers.” The second most cited reason for the increase was “new applications and systems,” with “new equipment/devices” not far behind.

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**Ticket resolution by level:**

![Ticket resolution by level chart](chart.png)

More customers, more devices, and more systems are all resulting in more tickets (often of increased urgency and complexity) for Level 1 support. It’s also the style and preferences of those customers having an impact on today’s support. Millennials—digital natives who have not lived during a time without the internet—dwell in a connected world that older employees and customers may not be as familiar with, even if they have embraced it. Support expectations, styles, and channels will change as the population of customers and end users changes.

This trend will likely be much more widespread if not universal by 2020.
The Popularity of Shift-Left

In addition to the technological and demographic considerations, and an already increasing workload for technical support teams, more and more organizations are using the Shift-Left approach to control costs and shorten resolution times.

It’s an approach that brings more complex work down to Level 1 while moving more repetitive work out into self-service. Likewise, more customers are seeking to solve their own problems before contacting support. With Level 1 work becoming more complex and more urgent for customers, support teams must optimize their processes and rethink their customer support strategies.

Are You Ready to Make the Shift?

Before your organization can effectively shift work left (i.e., closer to the customer), you should assess your readiness to do so. Consider the following steps, designed to move cases (incidents and/or service requests) to Level 1 from escalation groups:

- Review case records to determine which types of issues are being escalated beyond Level 1 and why.
- Determine which cases were Level 1 solvable and were escalated unnecessarily.
Determine which cases could be Level 1 solvable with the proper documentation, knowledge base articles, authorization, and access.

Review your plans with your human resources (HR) representatives to ensure:
- No company or union policies or contracts will be violated
- Job descriptions are adequate to include the new work

Review your plans with your information security (Infosec) office to ensure that the increased levels of authority and access are in compliance.

Plan and provide any necessary training—on tools, policies, or procedures—to Level 1.

Prioritize the shifts in work, beginning with the simplest and best documented.

Work with your Marketing team to craft a message for end users about the advantages of self-help/self-service. In order for it to be effective, customers need to use it.

Stage the shifts carefully; do not “dump” the work on Level 1.

Monitor the success of the Shift-Left program and celebrate quick wins.

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**The Consequences of Shift-Left**

By simultaneously reducing the number of repeated “one-and-done” contacts and increasing the complexity of the work done at Level 1, you are really changing the dynamic of the support center. Let’s look at some metrics individually and think about the consequences of shift-left.

- **Handle Time.** When handling more complex requests, analysts will take more time to troubleshoot and discover what is happening. Handle time will increase.

- **Speed to Answer/Time to Respond.** Since your Level 1 analysts will be handling more complex requests, they will not be getting back into their ready state as quickly, whether they are handling phone calls, chat sessions, or emails.

- **First Call/Contact Resolution.** Level 1 will be spending more time researching the solutions and getting back to customers and users, if necessary, rather than handing the work off to Level 2. FCR should trend upward once the Shift-Left strategy takes hold and the knowledge Level 1 needs is in place.

- **First Level Resolution.** This measurement should show an increase, since the whole point of shift-left is to move solutions to here (and out to Level 0 when possible).

- **Time to Resolve.** When they handle more complex requests, Level 1 analysts will take longer. But there will be fewer escalations, and escalations tend to slow things down. This may wind up being a wash, depending on how long it takes now for your Level 2 and 3 analysts to get to the issues. In other words, the longer your escalation groups’ resolutions take now, the better the chances of improving TTR.

- **Customer Satisfaction.** Since one of the prime complaints from customers is that the front line can’t help them, customer satisfaction should trend up because Level 1 is able to resolve more issues for them. Because of the possible increase in handle time and speed to answer, however, this trend may not be evident at first.

Make no mistake: Shift-left is a worthwhile undertaking. As with any change in your support center, however, make sure that your management understands that your metrics will change, and not always in a direction that “looks good.” Think through the effects of moving complex work to Level 1, and then communicate those effects to management before submitting metrics reports that show substantial change.
Better to see something once than to hear about it a thousand times. – Asian Proverb

The 2016 HDI Technical Support Practices & Salary Report shows that remote control is the most popular technology used to provide support, with 70% of support centers currently using it, and another nine percent planning to add it. The support center and desktop support are using remote support tools equally.

Remote support is provided by:

- Support center staff: 81%
- Desktop support staff: 81%
- Other*: 17%
- None: 3%

* Other includes application support, network operations, engineering, L2 support, consultants, exchange support, system and server administrators, and more


Any time an analyst is connected “hands-on” with an end user, there is a learning opportunity. Thanks to robust and secure remote control systems, “hands-on” no longer means that someone from an escalation group has to go to the deskside, except in increasingly rare cases.

When they are connected remotely to a user’s desktop, support center analysts or desktop support technicians can walk through any steps the end user was taking, and also show them better ways to accomplish a task, if there are any. Having not only a voice on the phone but also a “hand on the mouse” makes it easier and better for the user to observe and understand. The analyst or technician can also easily answer any additional questions a user has, and explain by demonstrating.

**Three ways customers/users can learn through remote connection:**

- **Watch an analyst or technician perform a task.** People who are very conversant with computers will often use effective shortcuts to accomplish a task. In addition, support sessions can be recorded and added to self-help as part of the knowledge base.

- **Listen to the analyst or technician explain what they are doing.** Often we don’t know there are alternate or better ways to accomplish something until we are told about them. That’s part of the work of support.
Repeat the steps done by the analyst or technician. Doing it for themselves—but under the guidance of the analyst—can help a user get a firm grasp on newly learned skills or the performance of workarounds.

Three ways analysts/technicians can learn through remote connection:

- By repeating the steps taken by the user, analysts or technicians can discover whether the error is consistently reproducible.
- By observing how the user is working with a particular application, an analyst can learn about how people are actually using the application, which often differs from what the documentation says.
- By seeing any struggles end users are having, analysts can help provide better documentation and even provide helpful input to developers and interface designers.

Educating end users, analysts, and technicians can reduce the likelihood and frequency of user-caused errors, thus reducing the future workload on support personnel. This ad-hoc training should not be considered as a complete replacement for training around rollouts, upgrades, or implementations, but rather as an ongoing effort to increase user familiarity with systems while reducing support contacts.
Focus 3: The Increasing Complexity of Level 1 Support

One of the primary tasks of Level 1 support has always been triage. The very early help desk was built on a “catch and dispatch” model, where only the very simplest issues were handled directly at Level 1 and all others were escalated. Over the years it became apparent that it would be better—especially for customers and users—if the simple incidents and service requests could be resolved at Level 1, and for many organizations, first level resolution (FLR) became a key metric.

Recently, there has been a great deal of interest in providing self-service and self-help for end users.

**Self-service:**
- Customers and/or users can create their own tickets (cases) without contacting the service desk

**Self-help:**
- Customers and users can search a knowledge base for solutions and/or download documentation
- Customers and users can reset their own passwords and even apply software updates and patches (in some cases)

The objectives of providing self-service and self-help are identical to those of the Shift-Left strategy: to provide solutions for customers and end users more quickly and at lower cost.

Further reading for tips on providing the best chances for self-service and self-help success:
- [Build a Service Portal and Request Catalog](#)
- [3 Reasons Your Self-Service Site Doesn’t Work](#)

When self-service and self-help are successful, the most frequent, repetitive, and simplest of incidents and requests are taken out of the hands of Level 1. This leaves room for the next phase of Shift-Left, which moves more complex issues down from escalation groups.

Independent of these factors, however, the complexity of support has grown as the complexity of the technical environment has grown.

Organizations are currently seeing some or all of the following variables that cause increased complexity:
- **Wearables at work.** Fitbit, Apple Watch, and other wearables are only the tip of the iceberg, but they already provide some insight into the increasing complexity of the types of support that organizations must be prepared to offer. As has been discovered over the past few years of experience with mobile devices, saying “we won’t have to support those” doesn’t hold up.
• **The Internet of Things.** Since more objects of more types will have IP addresses, they will become more manageable, but configuration management will become much more complex.
  - Have policies and procedures around the scope of support, and make sure that customers have the information they need to make good use of wearable and IoT devices.
• **Changes in device support.** Aside from an overall change of focus from hardware to data, many devices will become inexpensive to the point of being disposable, while more complex devices will only be repairable by the manufacturer. The support center needs to know how to treat various devices.
  - Make sure that you have clearly defined procedures for dealing with devices, including the amount of troubleshooting, if any, that should be done before replacement.
• **Support for cloud resources.** Which resources are on-premises and which are “in the cloud” will become less noticeable to customers and end users. The support center will need to know which is which and how to best provide support for all of them.
• **Support using cloud resources.** This item is closely bound up with the previous one, but it looks more at the array of tools available “in the cloud” and how support centers will take advantage of them to increase their capabilities while minimizing expenditures.
  - When cloud resources are being used, support needs to know the limits of in-house support as well as who to contact for support at the cloud provider.

The support center needs to have tools at its disposal that can connect to and control the increasing array of devices for which it is expected to provide support. Having the ability to connect via live, interactive video with a user can enable assistance even when direct control of a device is not possible. A user can use the camera on a mobile device to demonstrate an issue they are having, show any displayed messages on the device, and share other visual information with a connected analyst or technician. This can bring to bear all the advantages of a shared, real-time connection listed in Focus 2 of this toolkit.
Focus 4: The Importance of Tool Integration

Having a toolbox is a good thing, but if it is filled with a random array of unlike tools—screwdrivers, ratchet drives, hammers, and measuring tapes—time and efficiency is lost as you root around in the box looking for the right tool for the task you are trying to accomplish. The same is true in technical support. If an analyst or technician has a screen for tickets, a screen for monitoring, another screen for the knowledge base, another screen for live chat, and so on, getting the right information to and from the customer becomes a challenge.

**Technologies used to provide support:**

- Use it, with no plans to replace/update it
- Use it, but planning to replace/update it
- Planning to add it
- Don’t use it

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the right tools becomes more of a chore. Time is lost for both the analyst and for the customer or user who is waiting at the other end of the phone or chat. Even if the issue is not critical, people don’t want any interruptions to their work.

When tools are integrated, there is less hunting, less switching, and a lower chance of errors, such as pasting a solution into the incorrect window.

If an organization is using a full-featured ITSM tool or suite, incident, request, change, problem, asset, configuration, service catalog, and possibly service level management (most of which do not have immediate use for support) may be included, but that still leaves a long list of separate software for an analyst or technician to run and manage throughout a shift.

At any given time, an analyst likely has the following screens open:

- Remote control tool
- Incident management tool
- Collaboration tool (group chat, etc.)
- Remote monitoring tool
- Knowledge management (knowledge base) tool
- Chat for support (often multiple sessions)

Every manual transfer of data between tools is an opportunity for error. APIs and tools designed to integrate with each other reduce the chances of human error. The elimination of duplicate entries and redundant tasks also saves time, which saves costs.

When work is done using an integrated toolset, it is more easily tracked and reported, since timestamps and other important data are captured by the software and do not have to be entered manually. When the work records are more accurate, metrics can be more accurate, and reporting is more accurate for everything from staffing to monthly management reports.
About HDI
In 1989, HDI became the first professional association created for the technical support industry. Since then, HDI has remained the source for professional development by offering resources to promote organization-wide success through exceptional customer service. We do this by:

- Facilitating collaboration and networking
- Hosting acclaimed conferences and events
- Producing renowned publications and research
- Certifying and training thousands of professionals each year

Our mission is to elevate the customer experience through the development of the technical support industry.

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