

USING A KNOWN ERROR DATABASE (KEDB)



ITIL is a set of best practices that help IT teams function efficiently and align with the needs of business. One important piece of the ITIL that contributes to both of these goals is the Known Error Database, often shortened to KEDB. This is a database that tracks and describes all of the known errors within an overall system.

In this article, we are looking at the uses and benefits of employing KEDBs to align IT with the overall enterprise.

Defining a Known Error Database

To understand what a KEDB is and its importance to an IT team and the wider customers, let's review a couple ITIL terms. (Remember that ITIL is formerly known as the Information Technology Infrastructure Library. ITIL provides detailed best practices for IT service management, known as ITSM.)

- An **incident** is an unscheduled interruption in an IT service. This could mean email service went down without notice, it could mean some software stopped interfacing with other software, etc.
- A **problem** is the root cause of the incident; it's what made the incident happen, though it may take some time to identify the problem after the incident occurs.
- Once the problem is identified, it is no longer a problem, but a **known error** – the IT team knows what is causing an incident and what the issue is, but it hasn't yet been solved.

The distinction between an incident and a problem are significant – many users may report outages or interruptions, but IT may not know the problem, the underlying cause. When IT is able to uncover the problem that caused the incident, they can start to solve it, either with a short-term workaround or a long-term resolution.

A known error database, then, tracks all of the known errors within the IT's jurisdiction, which is typically an entire system or even organization. Ideally, the KEDB includes:

- Descriptions of how/when the issue will appear, including a description of the incident from the user's point of view
- Screenshots of the incident(s) and problem
- Text of error messages
- Workarounds (temporary solutions) that help the user handle the problem and return to productive work with minor to no delay
- Resolutions, if the incident and problem have occurred and previously been solved

Temporary workarounds vs. permanent solutions

Once IT can determine the problem of an incident, they have two routes to solutions.

1. The first is to find a long-term, permanent solution. Depending how complicated the problem and whether it has occurred before, IT must prioritize the time and resources it will take to find a permanent solution as well as how widespread and serious the problem is. This can mean some problems are de-prioritized.
2. The second route is to determine a short-term workaround. A workaround is a temporary fix that allows work to happen until the problem is resolved permanently. Workarounds are vital, as IT must prioritize how to spend time and money to solve which problems.

Situations that have been de-escalated from needing a long-term solution means that users may continue to experience the incident. When users repeatedly run into the incident, a workaround to the problem ensures that the user has only a minimum stoppage in productive work.

Benefits of a Known Error Database

IT teams within enterprises develop a KEDB because it offers many benefits, both to users and directly to the IT team.

Benefits of a KEDB to Users

A KEDB helps users continue in their productive work, as they typically aren't concerned about the wider effects of the incident. Here are some user benefits of a KEDB:

- **Reduces downtime.** If an incident is already reported, which is likely, a user won't have to wait long for a response from the help desk because a workaround likely already exists. This minimizes downtime while a user is working.
- **Ensures continuous work.** If the incident happens again, the user already knows the workaround, therefore contacting the help desk again isn't necessary.
- **Avoids individual troubleshooting.** When a workaround already exists, the user does not have to troubleshoot on their own. When user is troubleshooting without the help of IT, the user's

productive worktime decreases significantly. This also helps the user use their own skills for their own work.

Benefits of a KEDB to IT

Known error databases are especially useful to the IT department and the help desk in particular for several reasons:

- **Responds quickly to users.** The help desk doesn't have to find a workaround every time a user reports an incident. Chances are good that there is already an existing workaround, and by pointing the user to the database, the help desk has saved time on that incident.
- **Tracks occurrence and severity.** The KEDB allows the help desk to track how often and how widespread the incident occurs. The more users who report it, the more common it may be. This is another way of prioritizing how quickly a long-term solution must be found.
- **Offers consistent and repeatable workarounds.** With a safe and tested workaround, the help desk now has a consistent resolution for all users who report the incident. This improves the user satisfaction, which contributes to the IT department's efficiency.
- **Maintains safety.** When the help desk can offer a safe and proven workaround, users aren't inclined to troubleshoot on their own. Users attempting to find solutions to their own incidents can lead to serious problems like disabling antivirus software or triggering other incidents.
- **Prevents repeat work.** If the new incident has been solved before, IT can reference prior solutions as a starting point for researching and solving the current problem. This often leads to IT finding a resolution in a fraction of the time it previous took.
- **Avoids skill gaps.** Most help desks are staffed with a combination of entry-level and advanced-skills employees. A KEDB allows entry- and lower-level employees to have experience assisting users as they can reference the information in the database. This frees up the more advanced employees so they can continue resolving problems.
- **Prioritizes all IT issues.** The KEDB can become part the overall IT Problem Management Database. This database helps IT identify problems and prioritize where to spend their resources finding permanent solutions.

Known Error Database vs Overall Knowledge Database

While a KEDB can be integrated into a Problem Management Database, IT teams should use caution when considering integrating a Known Error Database into an existing Knowledge Database.

ITIL generally recommends that any sort of knowledge management, typically involving a knowledge database, be reserved for permanent issues and overarching knowledge.

A KEDB, on the other hand, is meant to house temporary problems until they are prioritized and solved. By keeping these databases separate, the overall knowledge management database does not have to be purged for outdated problems and associated workarounds or solutions.

Implementing a Known Error Database

Many organizations do opt to link their KEDB within their problem management database. This is useful as it helps IT prioritize all its outstanding issues at once. The known error and problem must be mapped one-to-one so that the standard data representation for the Problem Management Database also applies to the necessary data for the KEDB.

In order to be effective, however, IT must monitor the problem management database so that as known errors have permanent solutions implemented, they can be removed from the KEDB.

Ensuring Efficiency in a Known Error Database

A database is only as good as the information in it. While a KEDB sounds like a good idea and is easily justifiable in business needs, it must be maintained properly in order to provide the most return on investment.

Some experts suggest measuring the following situations to track the efficiency of your KEDB:

- Number of incidents opened that are now a known error
- Number of incidents opened that have a workaround
- Number of incidents resolved by a workaround
- Number of incidents resolved without a workaround or knowledge
- Time to generate known error record
- Time to generate workaround

Implementing and tracking a known error database enables the IT team to function more efficiently, while improving the satisfaction of users.