The Pragmatic Programmers

Real-World Kanban

Second Edition

Do Less, Accomplish More with Lean Thinking

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CHAPTER 5

Using Kanban in the Back Office: Outside IT

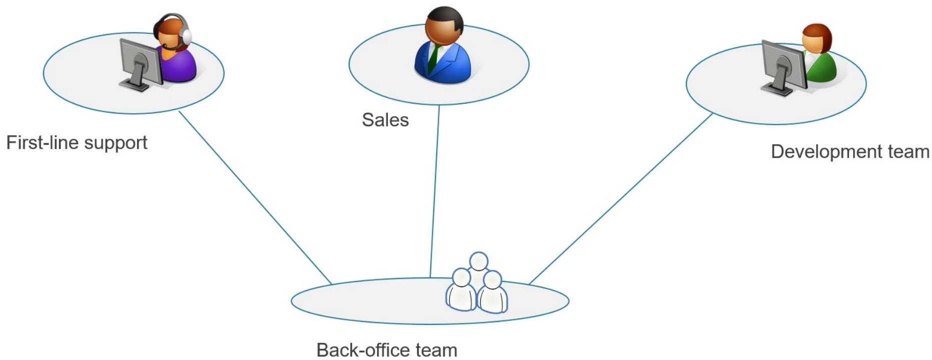
When we talk about change, it's easy to get bogged down with a specific method or technique.

We have already discussed how Kanban can be applied to knowledge work. The next logical question is whether Kanban can work outside of IT. Can Kanban help a self-managing team in an enterprise office environment?

Let's take a look at how a company used Kanban to help a non-IT team improve its operations. Kanban helped this non-IT team to get an overview of its workload, prioritize the tasks, and make sure it was working on the right things.

The Challenge: Keeping Up with Growth

In this case study, we look at a back-office team at a fast-growing bank in Sweden. The team handled pension issues and life-changing events for their customers—such as signing up new customers, processing payments and pension transfers, and tracking marriages and deaths. The team consisted of 14 people divided into two sub-teams—one with a consumer focus and the other with a corporate focus. Most of the time, the team interacted with a call center that acted as the bank's front-line support team. Occasionally, they fielded direct requests from sales and IT teams.



This non-IT team needed to keep up with the company's growth. The team needed to be able to add new members and get them up to speed quickly to keep up the pace instead of relying on a few senior members to handle the daily tasks.

The back-office team was already a very tight-knit team. We used Kanban to build on that relationship.

How We Got Started

The team's Kanban journey started because the managers wanted a new way for the team to handle its workload. At first, the managers looked at Lean for office work, but that didn't quite fit. The managers observed how IT used a Kanban board and decided to give it a try. At the time, I had no prior experience using Kanban outside of IT, but we decided it was worth a try.

Because team members were self-organizing, focused on their specific tasks, and expected to take end-to-end responsibility for their work, getting the full picture for the entire team was hard. This was a problem for management, which needed to track certain types of demand. Each demand type had explicit customer expectations associated with it, so it was important not to lose track of them. Some work had to be delivered on time to meet customer expectations and regulatory requirements.

Early on, we thought Kanban would help us get an overview and see what each member of the team was working on. Management also wanted help prioritizing tasks better to see whether the team was focusing on the right things. Other reasons for pushing forward with the change included spotting areas the team could improve, such as bottlenecks and stalled work.

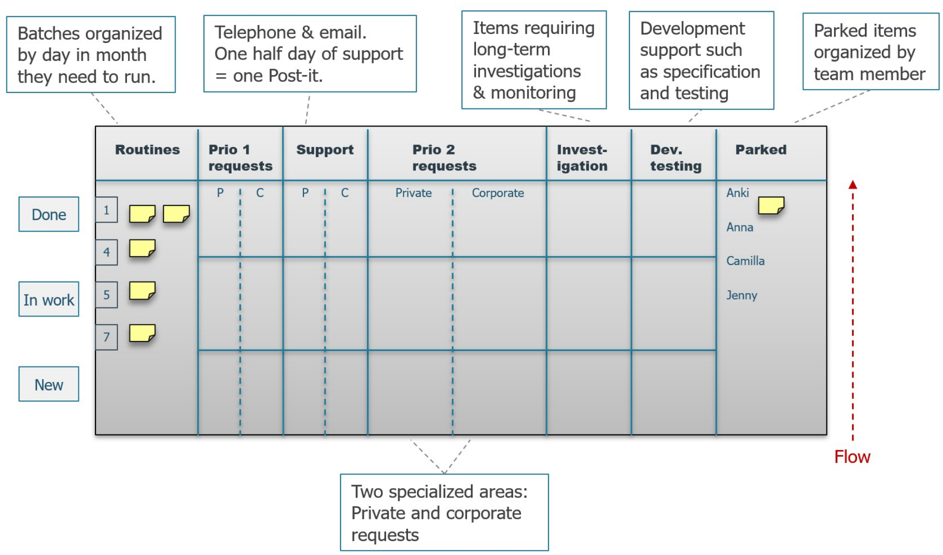
We were concerned that Kanban would result in unnecessary overhead, but the positive effects—focus, basic structure, and getting an overview—outweighed those concerns. The team decided to give Kanban a try, and we soon had our first board up and running.

We invited the team to a workshop where they could experiment with Kanban, learn basic principles, and ask questions. For the most part, the team reacted positively. No office team in the company had tried using Kanban before, and this back-office team was excited to be viewed as pioneers.

Learn the Principles

Learning about the principles behind Kanban helps the team understand how to move beyond the tools. Whenever you are about to introduce new teams to Kanban, invite all the members to a half-day workshop to make sure they understand both the what and the why of what they will be doing. This will pay off in later conversations.

That's the background in a nutshell. Let's look at how the process worked.



How Our Process Worked

Let's take a look at our Kanban board. The work arrived at any time through any number of channels: face-to-face requests from teams in the same building, queries over the phone, and tasks sent over email, to name a few. As soon as work arrived, it would be put on the Kanban board in the New row at the bottom and in the corresponding column, as shown in the following image. Each column has a designated prioritization, with the highest priority on the far left. The relative priority for each work type was set by the two managers of the teams. This made it very easy to spot what to focus on with a quick glance at the board from left to right.

Let's take a look at each of the columns in detail.

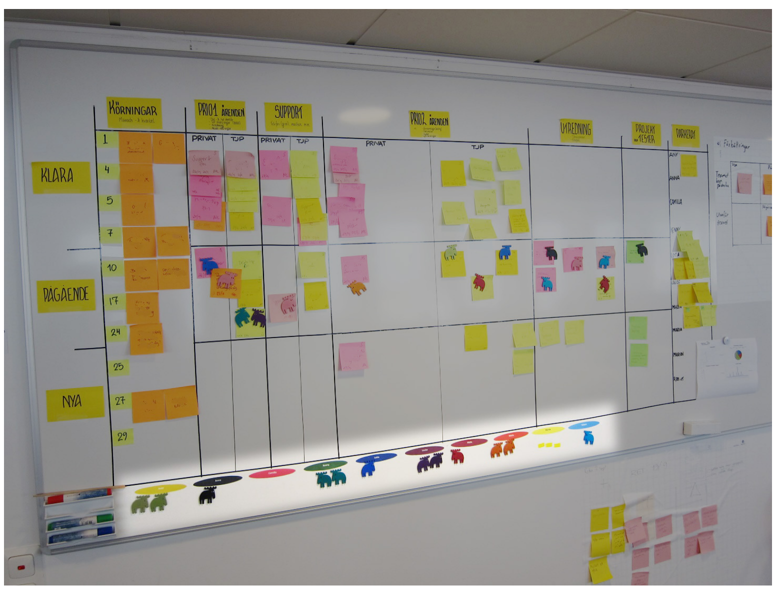
Demand Type	Column / Description
Routines	Some of the work was recurring. For example, "On Mondays, we have to run the payment batch." All these routines were kept on the left side of the board in a column organized as a (monthly) calendar. When the day in the month arrived, the employee would fetch the routine Post-it from the Routines column and insert it as a normal item into ongoing work (Prio 2 Requests). After completion and calculation, it would be put back in the Routines column under the correct date.
Prio 1 Requests	These were requests from customers that needed to be delivered quickly and on time.
Support	Support was divided into blocks representing a half day's support work. So if a team member spent one morning on handling support, that would constitute one block and would be represented on the board as one Post-it. The reason we kept the support work on the board was to make it clear who was working on what, to get a rough idea of how much of the team's total workload came from support issues, and to learn the variations in the demand flow over time.
Prio 2 requests	These were requests from internal functions that were not necessarily time critical.
Investigations	Long-term issues were kept here. Investigations represented issues we had to monitor or wait for input for a longer period of time, such as life-changing events when a customer died.
Development Support	This included acceptance testing, review of new requirements, or contributing ideas to the development team.
Parked	An item could only enter the Parked area if the team had already done all it could and external action was pending to resolve it. The neat thing about this column was that it was organized around each team member. This way, parked items didn't get lost or forgotten.

Dealing with Parked Items

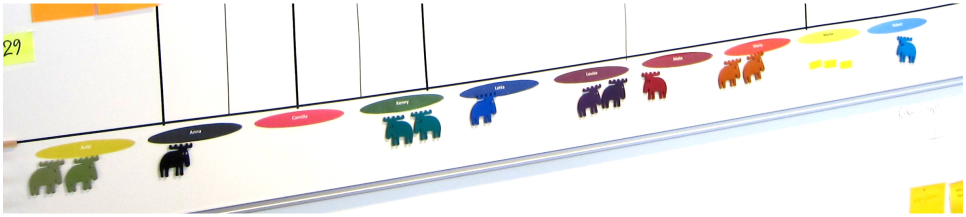
There is a challenge in maintaining a *parking area* for items that require external interaction: it's easy to forget about them. You can use one of three approaches to avoid this:

- Before you park an item, you should make sure that you have completed everything on your part first, because revisiting work can be costly.
- You should walk through all parked items in one of the weekly standup meetings.
- Or, as in the case of this team, you should keep parked tickets in a specific column organized by team member.

In the beginning, the team experimented with different settings and layouts to learn the level of granularity needed for each task, what to keep and what not to keep on the board, how to handle recurring routine work, and how to apply and use their work-in-progress (WIP) limits.



We introduced WIP limits with elks (yes, the animals). Every team member received three elks to place on the board. If the person had all the elks on the board, then he or she could not start new tasks until all the existing work had been completed.

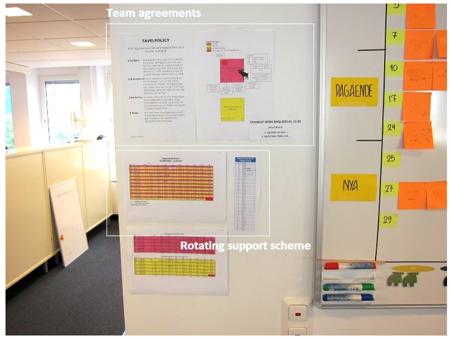


Using a limited number of physical tokens helped everyone to see who was working on what and to track work at risk of stalling. Work can stall for various reasons, including people being away from the office or being sick.

Before this team started using Kanban, support requests and small questions would just pour in to a random person on the team. To deal with this, we assigned the daily task of answering telephone calls and minor email requests to two team members. We rotated this assignment among the team members on a regular basis. Setting up this request-fielding system was challenging because not everyone on the team knew how to handle the main bulk of the questions coming in. After discussing the problem with the team, we decided that the person on duty would become the owner of that question. That person could ask for help from others, but as the owner, it was that person's responsibility to deliver an answer. Combining telephone and email support freed up other members of the team to work on long-term projects. The support schedule was also kept to the left of the Kanban board.

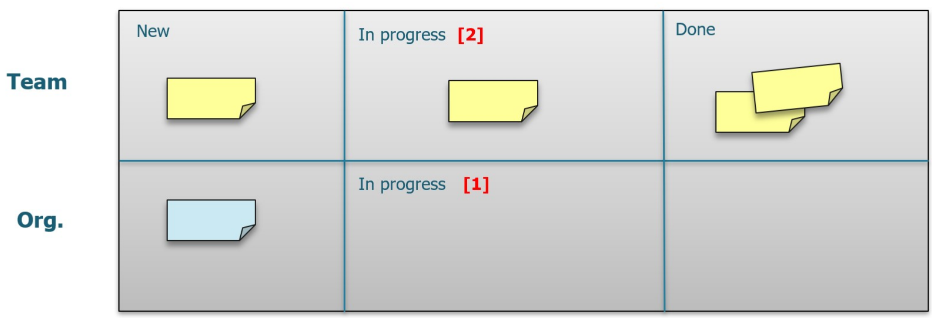
The members were positive about being part of the team. They liked the variety of work and often named good colleagues as one of the upsides of working with the team. With everyone managing his or her own workload, sharing responsibilities such as keeping the board updated and alerting each other when someone else was stalled did not come naturally. We grew this sense of shared responsibility by making the team take ownership of the board. Everyone had a chance to weigh in on any change—we called them *team agreements*—before it was added to the board. We cultivated a strong sense of ownership by keeping a document on the left of the board listing all the agreed-upon changes.

The managers maintained a knowledge plan listing who needed to learn what topics and who could teach which materials. This plan was visible to the team, and it was up to the team to update and maintain the plan every six months.



How We Continuously Improved

We figured out which areas to improve just by observing the board and regularly talking with the team at the daily standup meetings. The team held a retrospective meeting once a month in front of the board to find out what worked well and what needed to be improved. We visualize ongoing improvements under an *improvement Kanban*, which we kept on the right of the main board.



The improvement Kanban was divided into two swim lanes (horizontal rows), one for the improvements within the team's scope of control and one for improvements within the organization's scope. The department managers owned the Organization lane and were in charge of updating the team during the retrospective meetings.

The team measured total throughput, the distribution of demand types in percent, and cycle time (time through the Kanban system). Management updated the measurements once a week and posted them at the side of the board. The team found they successfully answered 95 percent of all requests within six days or less and addressed the majority of requests—at 88 percent—within two days.

Roughly every six months, the team revisited all the routines and asked questions such as, “Is this useful?” or “Should we do this differently?” Kanban forced the team to clarify how and why it was doing certain things. One of the managers told me, “Walking through our routines regularly has proved really powerful. We will definitely keep doing this in the future.”

One of our early concerns was how to improve the software tools being used. The development team behind the software worked in the same building and used Scrum, but it was nearly impossible to get the back-office team’s feature requests prioritized because there were always other bigger requests with higher priority.

Bugs were fixed right away, though. So the team started inviting individual developers to sit next to the team member for an hour or two and observe how the software was being used. The development team then decided each developer should take his or her laptop along during this observation period. Whenever a member of the back-office team ran into difficulties with the software, the developer could fix and test the code on the spot.

That made a huge difference! The developers managed to fix an array of small but really nagging issues in a short time, such as flexibility when entering Social Security numbers in different ways and illogical button positions.

Get Out of the Sprint and Sit Next to Your User

There is no better way to fix problems than to have the developer on the spot, sitting right next to the user.

How we approached making improvements with other teams may be new to you. We called it *fika-driven improvements*. *Fika* is a Swedish word meaning “coffee break,” or the time spent chatting over a cup of coffee. This team used fika to kick off improvements with the first line of support team.

How We Got Going with Fika-Driven Improvements

by: Manager

We initiated our rolling support scheme with two team members handling smaller questions coming in over the phone and email. To make this work, we needed a new telephone number to allow for two incoming lines from corporate users and private clients. We also created a wiki with answers to frequently asked questions. We decided to share the wiki with first-line support so that they could answer some basic questions before calling us.

But we didn’t ask the first-line support to change their work routines right away. We hardly knew each other, despite working for the same company.

> We started with a simple goal: to get to know the person behind each name. We invited members from first-line support over for coffee once a week. Our team got to know everyone in first-line support, and they got to know all of us during these coffee sessions. Once we had that relationship, we were able to discuss how we could work together to improve our work, such as:
>
> - How we treat each other on the phone when under stress.
> - How to handle duties that didn't logically belong to first-line support or back office.
> - How to train a contact person in first line on answering questions that were a bit more advanced.
> - How to create a small quiz that could be used to train new staff members in the first line to quickly get them up to speed on back-office issues.

The magic about this team was that they always managed to find a solution. Even when problems stretched outside their sphere of influence or when things seemed impossible, they took on problems with a positive spirit and managed to move forward every week. Some weeks they took smaller steps than others, but they always moved forward. The manager's role in driving this culture was critical. By asking questions and having conversations, the team always knew where they were and where they needed to go. There was a positive vibe around this team that made everything seem possible.

Know the People Involved

Getting to know the people on the teams you want to involve in a change is a wise tactic.

There are plenty of minor tips and tricks we can learn from this team. But let's zoom out a bit for now and take a look at how the team felt about working with Kanban.

What Lessons We Learned

When I asked the team's manager whether Kanban was useful, I got an interesting reply:

"When demand is high and we are under stress, the activity around the board increases and the team really uses our Kanban board. But when the demand is low and if we only have two to three people at work, the board is considered an overhead, since two to three people can easily have a shared overview on things and know they will complete work in time anyway. But when demand peaks, Kanban really helps us prioritize and make sure that we focus on the right things. Prioritizing correctly would be nearly impossible otherwise."

One of the challenges in the beginning proved to be setting the right definitions to make Kanban useful in everyday life. For example, we had to agree beforehand on how routine work should be handled, whether it should be on the board, how to deal with small support tickets, and where to set our WIP limits. It took some experimentation to get those right. But once we settled on how to do it, Kanban worked just fine.

Another challenge we encountered was trusting people on the support team to handle questions coming in by email. The team used a common email list, so it was tempting for other members who knew the answers to just step in and respond. This was something we constantly needed to talk about and work on, especially because this team was growing and we constantly had new people joining the team.

Let's look back at the questions we had before we got started and see how Kanban changed things.

Comparing Now and Before

In the beginning, we asked whether Kanban could be applied to a normal office environment and under what situations Kanban would be valuable. Our early experience showed that Kanban helped the team get an overview of what was going on at any point in time. This allowed the team to move from working as individuals pulling tickets off queues to coming together as a team.

As the team members increased their skill and experience to handle a wider range of requests, the Kanban board was useful during high peaks of demand. During lower periods, the team's ability to self-manage combined with the support rotation was sufficient to handle most situations.

The low process overhead and self-managing stance allowed managers and senior team members to invest time in training and preparing new team members so that they could get up to speed and be self-sufficient quickly. Managers spent less time micromanaging and could shift focus to making improvements. A case in point: managers trained a new team, first-line support, to handle small routine requests.

In retrospect, Kanban was instrumental in helping the team grow and handle work efficiently during high peaks of demand as the company expanded.

Make Your Own Improvements

Kanban helped the back-office team manage a growth phase. If you want to use Kanban in an office environment, here are a couple of things to bear in mind:

- Start with the team. Clarify and discuss your reasoning for introducing Kanban. Try it out for a period of time and then evaluate.
- Keep it simple. Use only a minimum of parts that are helpful to reduce unnecessary overhead. If you have the budget, consider an electronic board so you can get both support tickets and other work in the same place. An electronic board offers team members the flexibility to work from home, with the same overview as a physical board at work.

* If you face demand that has to be handled within a certain timeframe but you lack the means to control the inflow (such as an emergency ward during a major natural disaster), make sure you can switch with other less time-sensitive work in a controlled fashion. In this back-office team's case, work at the far right of the board was swapped in favor of work at the far left during high peaks of demand. Kanban can help create a shared priority across all team members to make sure that you focus on the right things.

* If you move on to using an electronic Kanban board, try to combine it with a large touchscreen, where the team can gather around and discuss the issues. Kanban should be sparking conversations among team members about current work, blockers, upcoming demand, board layout, and improvements. A screen provides a focal point for sparking these conversations in the same way as a physical Kanban board would.

Next steps

The back-office team clearly demonstrated to me that Kanban works well indeed outside IT, especially in the case where the team is growing quickly.

If you are curious about how a Kanban team that has been using Kanban for more than 10 years is faring today, you'd want to read the story of Kanban in Capital Markets.