IBM **Agile Service Manager**

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Context

The practice of IT Operations is rapidly evolving. With the increase in easy-to-access digital services and products, businesses need to keep competitive by frequently adding new features and functionality to impress their customers. But, providing great features and functionality is only useful if the service or product is reliable. Customers expectations are high - they expect apps, websites, and services to always be running smoothly, with very little error or down time. Even the smallest error can tarnish a companies reputation.

This demand for a service that always works and is continuously improving, puts a lot of strain on both operations teams and development teams. Companies have to adopt technologies, methodologies, and practices (such as DevOps) that enable rapid development and deployment to dynamically scalable environments. It's not always an easy change.

With these dynamic and ever-changing environments, it's hard for IT Operators to monitor services and quickly resolve outages. They can no longer rely on their knowledge of the IT infrastructure and operations environment - they often have to use multiple tools and systems to get the information they need. It can be really difficult to identify what has changed, when it changed, what caused the issue, and what else was impacted.

IT Operators are under immense time pressure to resolve issues so the impact to the customers and the business is a small as possible. They need to know what the infrastructure looked like before and during the issue to understand how they can resolve it and avoid it occurring again. They are often measured on how quickly issues are resolved and how regularly issues occur - there is very little room for error!

IT Operators need good tools and systems to help them effectively understand the issues in the environment and make sure they are resolved as quickly as possible. This is where IBM Agile Service Manager can help.

IBM Agile Service Manager

IBM Agile Service Manager is a powerful dynamic topology management solution for increasingly unpredictable IT and network environments. It allows operations teams to monitor and understand their complex and dynamic environments through a clear visualisation.

IBM Agile Service Manager provides ITOps and DevOps teams with a visual understanding of the resources within their environment, and the relationships between those resources. Furthermore, IBM Agile Service Manager maps data for multiple technologies such as ITNM, OpenStack, and Docker all in one place. This means that operations teams can easily understand and see the dependences within their environment, and identify what needs to be fixed during events or incidents.

Not only does IBM Agile Service Manager provide operations teams with the ability to look at a visualisation of their infrastructure in real-time, but IBM Agile Service Manager also allows users to explore historical views. With an environment that is constantly changing, you need to know what the environment looked like before the issue occurred so you can see which parts of the environment were impacted and determined what happened. IBM Agile Service Manager allows operation teams to return to specific points in time and view the changes in the environment - making incident resolution a much quicker and easier task!

Our Brief

We were tasked to improve the user experience of IBM Agile Service Manager. Over the course of 1 year, we worked on two major releases which vastly improved the user experience.

Process

In order to improve the user experience of IBM Agile Service Manager, we worked in a multi-disciplinary team of designers, researchers, product management, and development. We used design thinking methods to understand the problem at hand and how to best address it. We worked iteratively in 2-week sprints, conducting user research and acting upon the insights throughout the whole design and development process.

User research

In order to deliver a better user experience for our customers, we kept user research at the heart of our process. We wanted to ensure that IBM Agile Service Manager was relevant and competitive in the IT Operations market and knew that understanding the users was the only way to achieve this.

We conducted both generative and evaluative research throughout the project. Generative research was used to better understand the field of IT Operations, what it means to work in IT Operations, and what opportunities exist in this space. The types of activities we conducted were: depth interviews, observation and contextual interviews, personas creation, an opportunity algorithm study, formative RITE testing (rapid iterative testing and evaluation). Evaluative research was also conducted to help us better understand the value in the design work we were creating, whether it was usable, and if it was delightful. We did the following: a heuristic review of IBM Agile Service Manager, unmoderated remote usability testing of the timeline, unmoderated remote usability testing of the set up and management of observer jobs, gathered feedback on our service icon and empty state designs.

Consistent user research allowed us to understand the complexities of the domain we work in but also empathise with those who working in IT Operations by achieving an understanding their job roles, goals, and challenges they face.

Collaboration

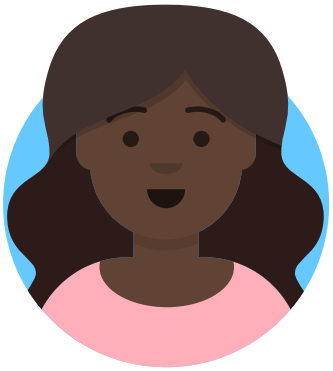
In addition to user research being key our process, so was collaboration across our multi-disciplinary team. Being a technical domain, we worked closely with our development team and product owner who had more detailed knowledge of the field. This meant that we were able to ensure that our designs were suitable to the domain we were designing for.

We also put a lot of effort into communication and alignment, with regular playbacks and workshops to make sure the wider team were onboard and focused for each release. We conducted playbacks and workshops with product management, development, and our users. This helped us to clearly prioritise and work together toward a shared goal.

Insight

Through our user research, working closely with development and product management, and, speaking regularly to clients, we achieved a detailed understanding of the challenges facing those working in IT Operations. Whilst we made a range of changes to the user interface to make ASM more user friendly, here we present four key insights that really helped us to differentiate and improve our product.

01 ***We had to design for a range of skill levels.*** IT Operations is a field that is changing a lot; the technology changes frequently and practices are constantly evolving. This means that people do not always have the same skill levels. Furthermore, through speaking to users, we defined key personas and use cases for IBM Agile Service Manager. Here we identified that our product would be used by 3 different personas who have very different skill levels. We needed to ensure that our designs would support people of all relevant skill levels and enable them to do their jobs well. As such, we made sure our designs were visually simplistic, we provided guidance in how to use new features, and, we worked hard to ensure the copy was easy to understand.



Annete

IT Operator

Brock

Solution Architect for IT Operations

RJ

Operations Engineer

02 ***Getting Started and configuring IBM Agile Service Manager was a complex process.*** Through observations and client interactions, we identified that users struggled to set up the observers (data collectors used to gather information about an IT environment). Typically, they couldn't complete this task alone and needed to refer to help documentation or contact IBM teams for support. They found the task long-winded and frustrating, they lacked confidence that the system was working correctly. Furthermore, if the users did manage to get their observers set up, there was no easy way to manage these which is extremely problematic for operations teams who are already tight on time. We also discovered that the observers themselves were running too slowly and, consequently, proof of concepts were failing. We needed to streamline the process of setting up and managing observers, as well as improving the time taken to retrieve the data.

03 ***Operations teams struggled to find a specific node or resource within a certain view.*** Resolving issues is time sensitive. Operators need to quickly find items that they are looking for, they don't have time to browse. When trying to establish the cause, they may have an idea of which resource they need to explore and how it may impact other resources - this is often imperative to finding the cause. IT and network environments are often extremely busy and complex, therefore, even the most simple viewing options can contain many many resources. It was really difficult for people to quickly find a single resource in their current view. They needed to be able to search within a specific view of the environment to establish if a specific resource was there or not.

04 ***Knowing what happened at a specific point in time is key to resolving issues.*** Finding the cause of an issue can be really tricky for operation teams. Using an opportunity algorithm study, we identified that there was huge value to allowing users to understand what happened at a specific time point. Users need to identify what changed in the infrastructure when the event occurred and compare that to the infrastructure before and after the event. This makes it much easier and quicker to identify the cause and allows operations teams to meet their targets. In addition to a realtime topology view, we needed to provide users with historical data that was easy to understand. We made sure that people could easily navigate between a realtime topology and historical views and provided them with clear information to help identify what had changed and how.

Artefacts

Over the next few pages you can see some of the designed artefacts that have gone in to the latest release of IBM Agile Service Manager.

Image 01: This is the empty state screen you see when you first visit the product. The illustration suggests that a topology will be shown on the canvas when the user hits render.

Image 02: This is what viewing a topology looks like in IBM Agile Service Manager. A user can then zoom around and interact with the various nodes shown on the canvas.

Image 03: Sometimes a topology can contain hundreds of nodes. To help users navigate this a user can search for specific nodes within the topology–quickly and easily.

Image 04: The timeline allows a user to quickly identify points in time in which a change has happened in the topology.

Image 05: Perviously too configure an observer a user would have to use the command line interface. We created a simple two click interface to make this process as simple as possible.

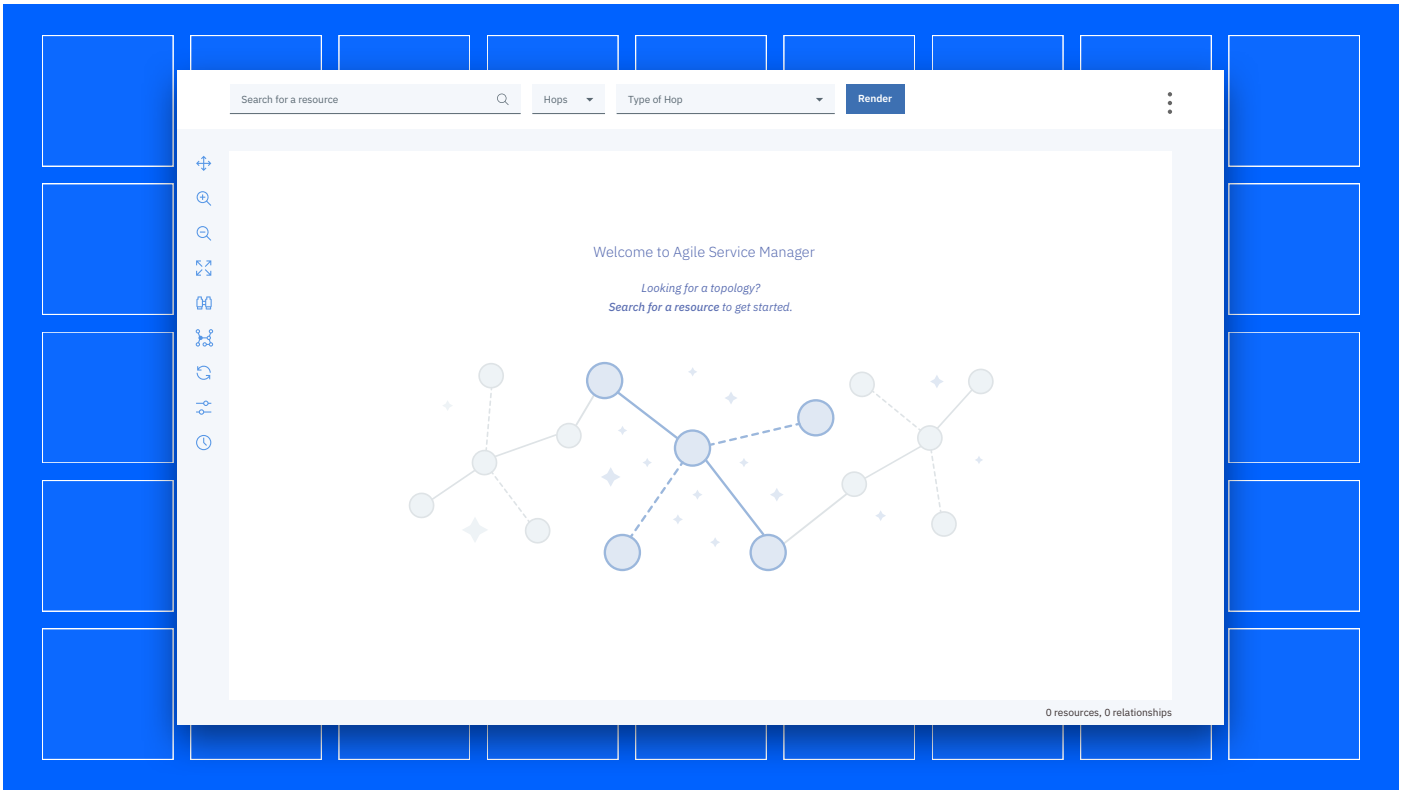


Image 01–Empty State

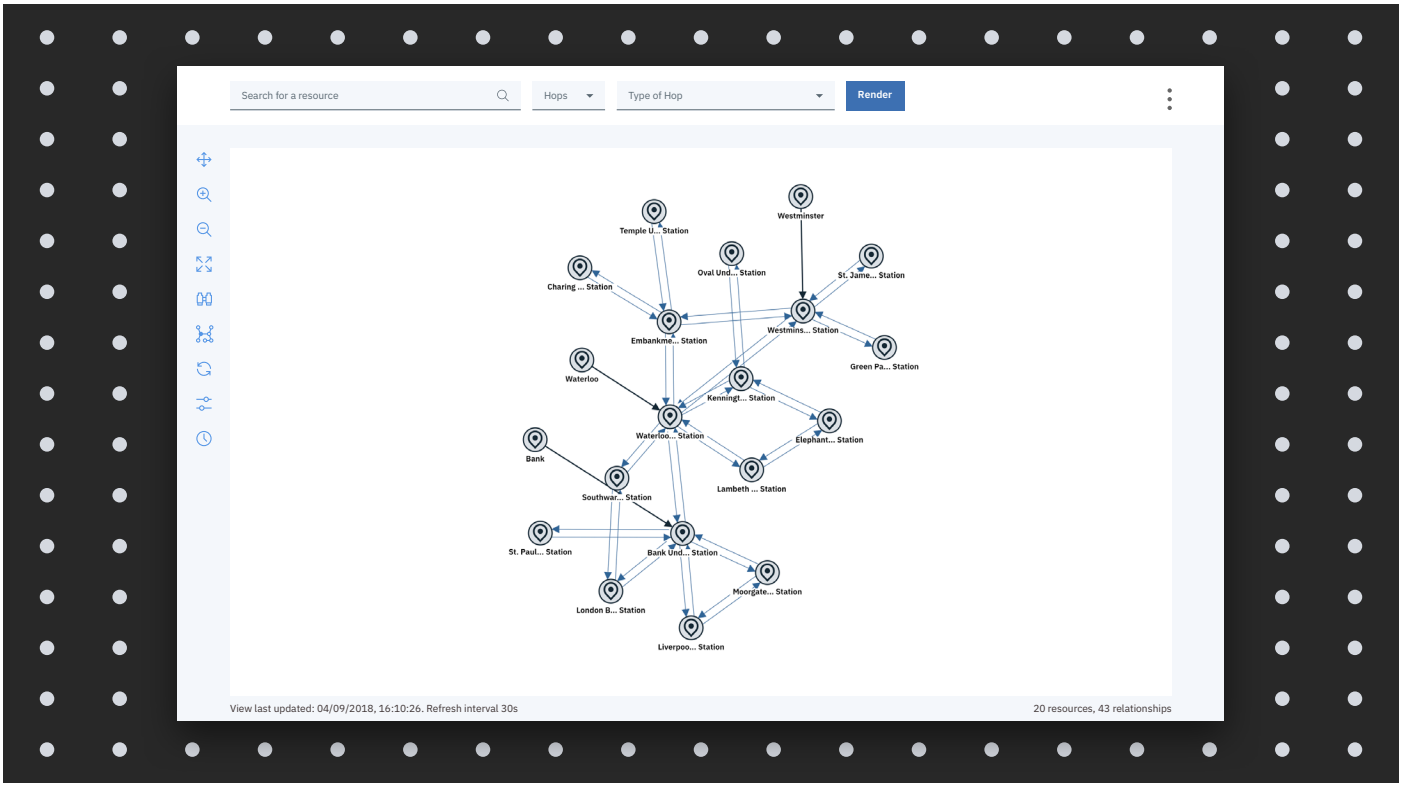


Image 02–Topology view

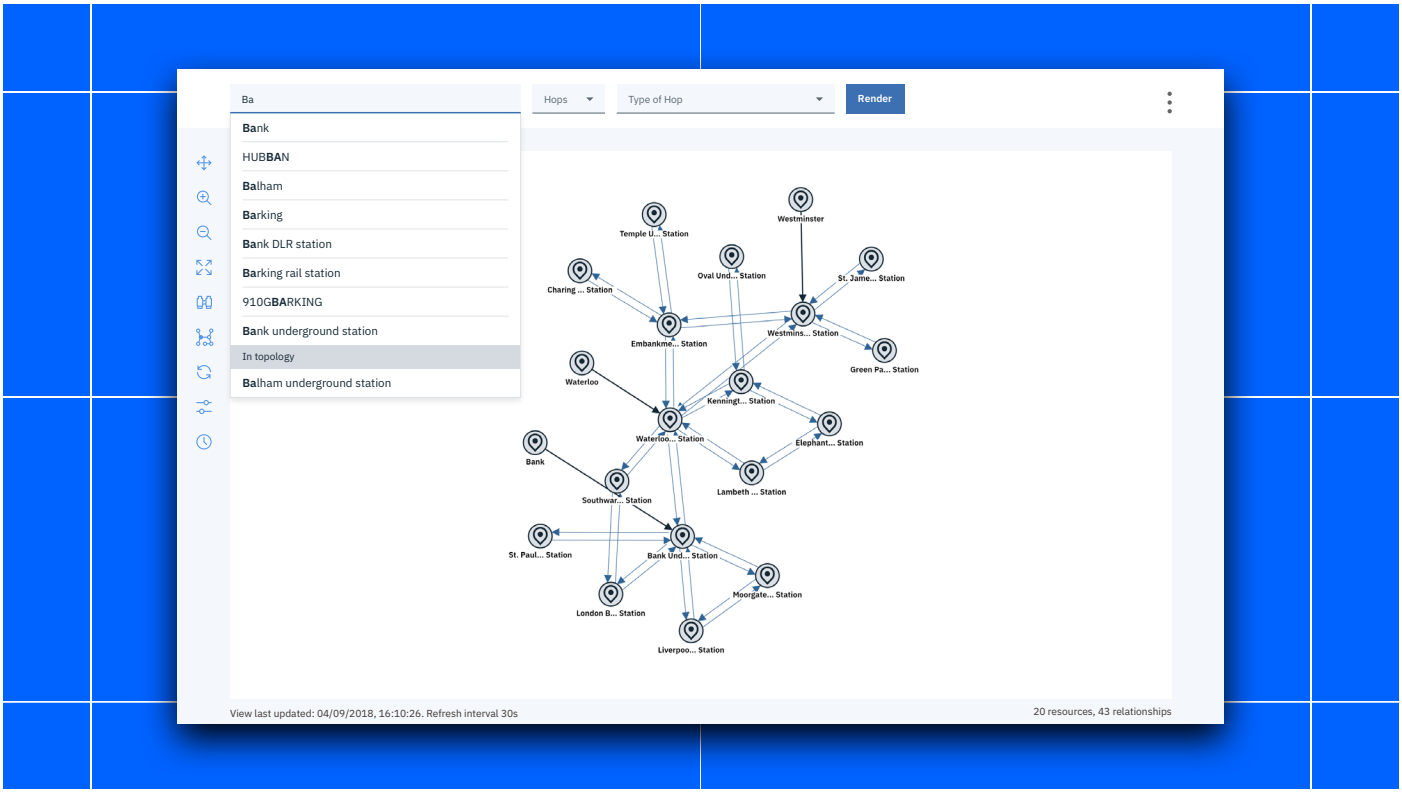


Image 03–In topology searching

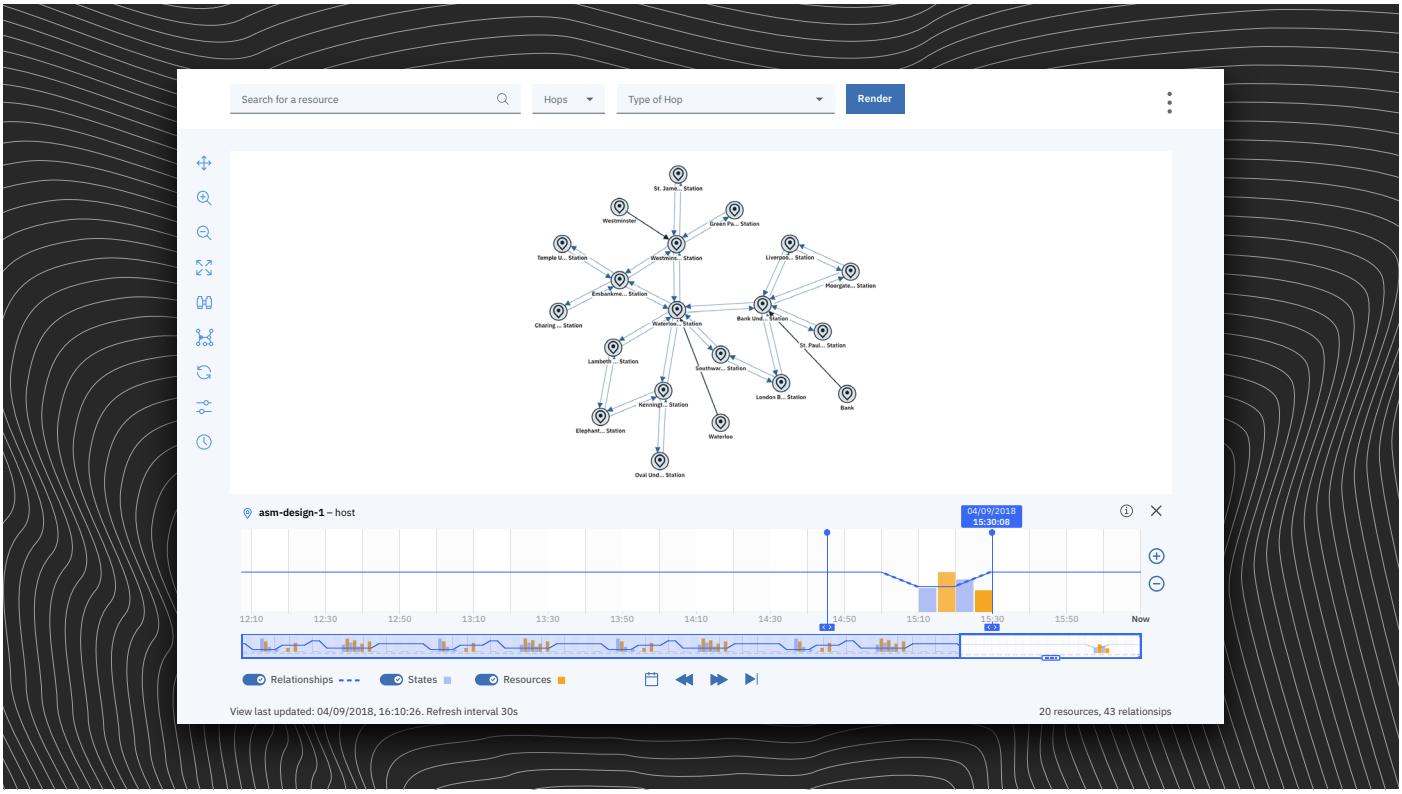


Image 04–Topology timeline

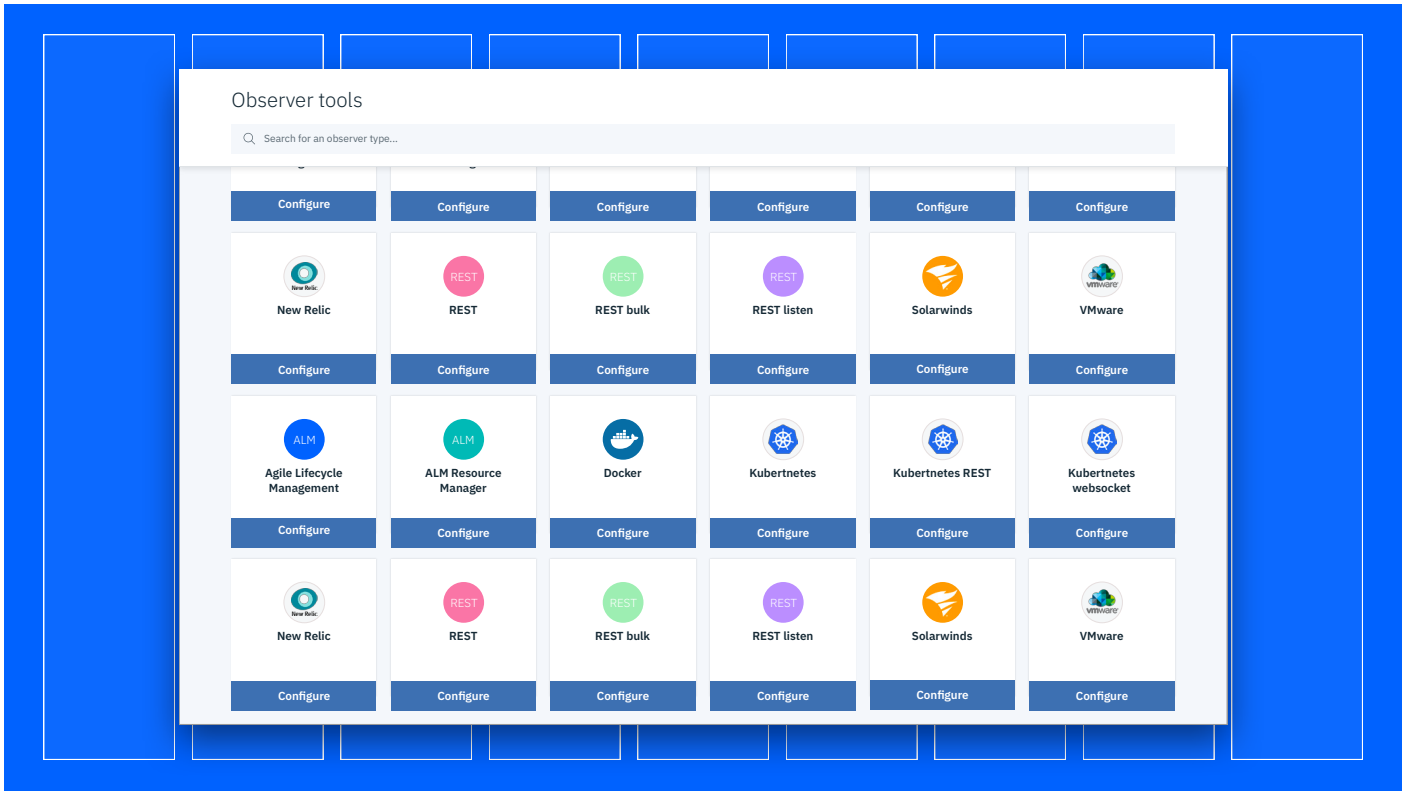


Image 03–Setting up an observer

Client Response

When we started on this project, our goal was to improve the user experience of clients using IBM Agile Service Manager. We knew this would be a tricky task given the complexity of the domain and the tasks that the users needed to complete. But with lots of hard work, continuous user research, and multi-disciplinary collaboration, we achieved it.

Throughout the process we have had spectacular feedback from our clients. They have been very engaged in the work we have been doing; feeling involved and appreciated as our clients. More importantly, the new releases have really streamlined their IT operations processes, making their jobs easier and their performance more efficient.

> *"Before [IBM Agile Service Manager], I would go to a [metric] dashboard to try and understand the problem. Now, I go to the topology views to immediately see the context."*

Not only have we made the tasks at hand easier to complete, but we have done so whilst providing a delightful experience with our simple and clean design style (which is extremely important for the tense, time-sensitive situations that operations teams often find themselves in!).

> *"If we could throw out all the other UIs and go with this [IBM Agile Service Manager] one, that would be good!"*

From taking a human centered approach to design, we have created a product that truly meets the users needs. Because of this IBM Agile Service Manager now has more clients. We now have clients spanning a wide range of industries including the following: government, tele-communications, retail, retail banking, automotive, energy and utilities, financial markets, travel and transportation, wholesale distribution and services, and insurance industries. We are proud to say, our design work really has made a difference.

> *"Agile Service Manager is one of the most unique products available for showing real-time AND historical dependencies. Once you see it in action, you'll wonder how any operations team could function without it. It's a product with some truly unbelievable capabilities."*

***—Frank Tate,** CEO @ GulfSoft Consulting via LinkedIn*