servicenow.

7 habits for a highly effective chatbot

ServiceNow Virtual Agent
transforms chat experiences
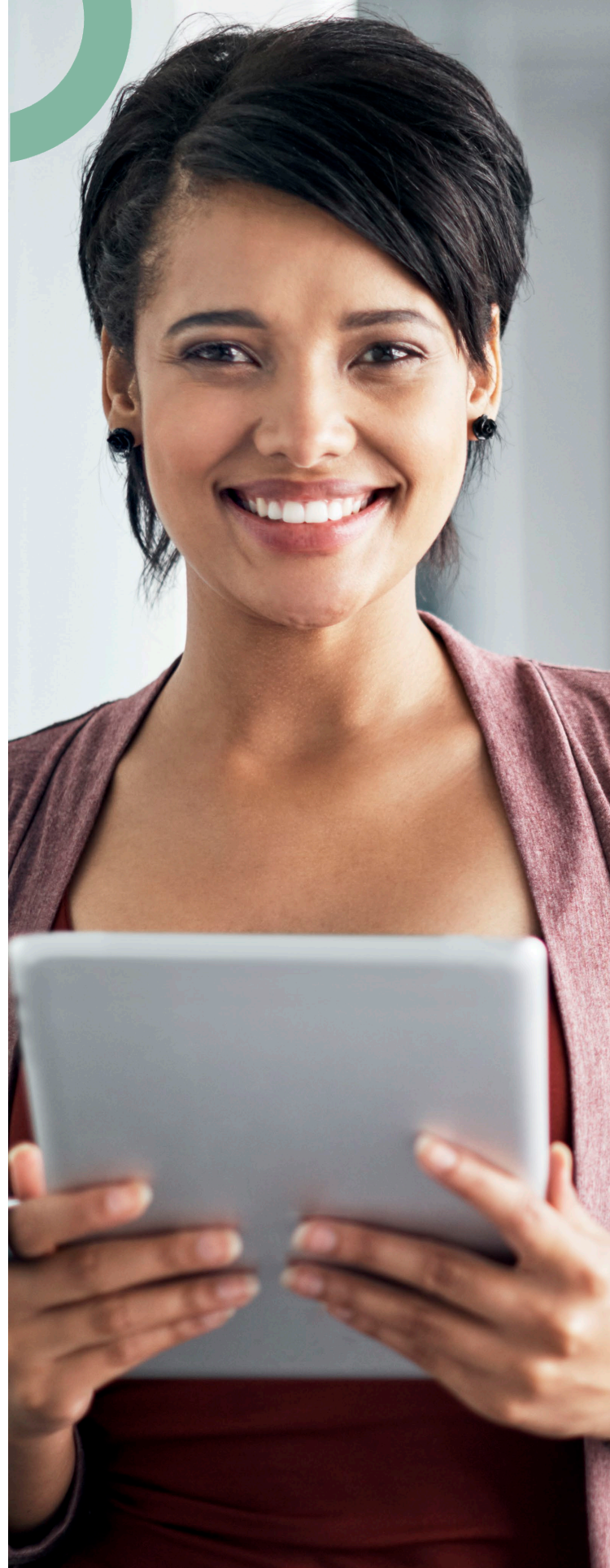
# Table of contents

Introduction

Why use chatbots?

Chatbots can solve your users' most common requests, enabling them to self-serve or get immediate help, anytime, anywhere. From start to finish, chatbots offer a personalized experience by applying and remembering user information during the conversation—meaning issues are resolved faster. And when deployed on channels users are already familiar with, such as Microsoft Teams or Slack®, they experience a convenient, accessible way to get work done.

Chatbots support many tasks, including:

- Providing troubleshooting or "how to" information, such as step-by-step instructions to solve VPN or hardware issues
- Querying or updating records, such as checking the status on incidents and adding comments
- Resolving multi-step problems or running multi-step workflows, such as changing a password or updating an address for payroll

Automating support tasks with a chatbot frees up your support agents to focus on more complex user issues and enables you to scale your support organization, faster.
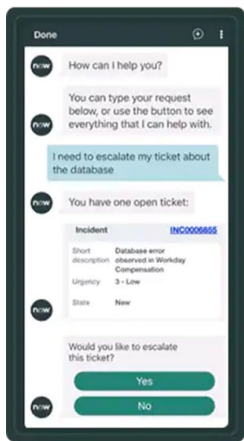
What is ServiceNow Virtual Agent?

ServiceNow® Virtual Agent, available on the Now Platform, is an AI-powered conversational chatbot that enables users to resolve issues on their own, without waiting for a live agent. Virtual Agent makes it easy to design and build automated conversations that help users quickly obtain information, make decisions, and perform common work tasks. And users can access support no matter their location, with Virtual Agent available on ServiceNow mobile apps.

Why seven habits?

Building a chatbot can help you reach your business goals—whether it's higher deflection rates, greater employee productivity, or faster time to resolution. Ensure your Virtual Agent implementation achieves the desired outcomes and garners high levels of user adoption, with seven habits for chatbot success.

These habits have been identified and tested through hundreds of ServiceNow Virtual Agent deployments globally.

> In 2020, Virtual Agent deployments increased 300%, and self-service usage by employees grew 15-fold!

HABIT 1

Identify your desired outcomes

It can be tempting to jump straight into constructing the most complete chatbot. But first, it's important to consider the desired business outcomes. Ask yourself, what are the operational results we're driving towards?

For some organizations, outcomes may include:

• Reducing email and call volume, which saves time and money

• Deflecting and resolving common issues prior to live agent involvement, so that agents can focus on more critical tasks

• Providing actionable self-service 24/7, improving employee experience and satisfaction

It's important to start with clear goals and objectives, and then build a chatbot experience with a focus. These goals can then be measured through cost savings, solve rate, and CSAT. Make sure to also ensure the right roles and governance are in place at the start so that responsibilities and scope are clearly defined.

How ServiceNow sharpens this habit

ServiceNow provides thorough implementation guides with step-by-step guidance on starting up your Virtual Agent. The guide includes everything you need, from a readiness checklist, to training resources, and a communications plan. More information can be found on our community forum for Virtual Agent and NLU.

| Initiate | Prepare | Create | Transition | Close |

HABIT 2

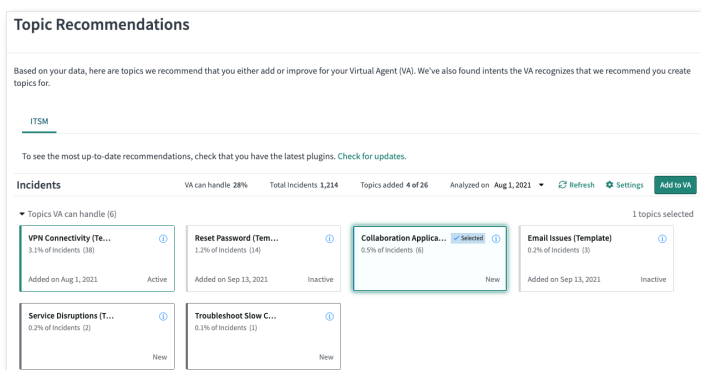# Start small, aim big—but most importantly, start!

Building a chatbot that addresses every problem in your organization may seem daunting at first. It's not necessary to fulfill every request or create a conversation for every workflow.

Consider applying the Pareto principle, which states that 20% of causes drive 80% of outcomes. In other words, 20% of your organization's incidents likely drive 80% of the tickets and support calls. By identifying the top 20% of your organization's problem drivers, you can focus on creating great conversations to solve those problems. Think about creating an "MVP" (minimum viable product) list of topics first and iterate from there.

Most importantly—start somewhere! Generate momentum by experimenting with a few crucial topics that have potential to drive the most resolutions. Once you nail the top 20% of issues, you can apply those learnings and further expand the footprint of your chatbot.

How ServiceNow sharpens this habit

If you're curious about which problems drive the most incidents, evaluate your organization's existing data to surface deflection opportunities. Use ServiceNow Performance Analytics to analyze your incident data and find patterns of high-volume issues. Then, apply those opportunities towards your initial Virtual Agent topics to build and optimize. For example, you may find a pattern of password resets or hardware requests that consistently impact live agents. These may be ideal workflows to automate with the Virtual Agent.

Pro tip: Start with 10-15 topics, not including your setup topics. The out-of-the-box topics provided by ITSM and HRSD are pre-built conversational workflows that cover business critical use cases.

Topic Recommendations

Based on your data, here are topics we recommend that you either add or improve for your Virtual Agent (VA). We've also found intents the VA recognizes that we recommend you create topics for.

ITSM

To see the most up-to-date recommendations, check that you have the latest plugins. Check for updates.

Incidents	VA can handle 28%	Total Incidents 1,214	Topics added 4 of 26	Analyzed on Aug 1, 2021 ▾	⟳ Refresh	⚙ Settings	Add to VA

▾ Topics VA can handle (6)   1 topics selected

VPN Connectivity (Te... ⓘ	Reset Password (Tem... ⓘ	Collaboration Applica... ✓ Selected ⓘ	Email Issues (Template) ⓘ
3.1% of Incidents (38)	1.2% of Incidents (14)	0.5% of Incidents (6)	0.2% of Incidents (3)
Added on Aug 1, 2021 Active	Added on Sep 13, 2021 Inactive	New	Added on Sep 13, 2021 Inactive

Service Disruptions (T... ⓘ	Troubleshoot Slow C... ⓘ
0.2% of Incidents (2)	0.1% of Incidents (1)
New	New

Topic Recommendations is another tool to identify opportunities for incident deflection with Virtual Agent.

HABIT 3

Personalize the greeting experience

First impressions matter, and the Virtual Agent greeting message sets the tone for the interaction. Users expect an empathetic experience whether the interaction is in-person or via a chatbot. Generic greeting messages can leave the user wondering if the Virtual Agent is equipped to handle their request, but a personalized greeting can put the user at ease. Personalization may include adding the user's name, capturing their location, showing their most recent requests, or providing relevant announcements. You can also give your Virtual Agent a customized name or logo that reflects your organization and adds an additional layer of familiarity. While users should still understand they are interacting with a chatbot—they can feel it's one that is intelligent and empathetic.
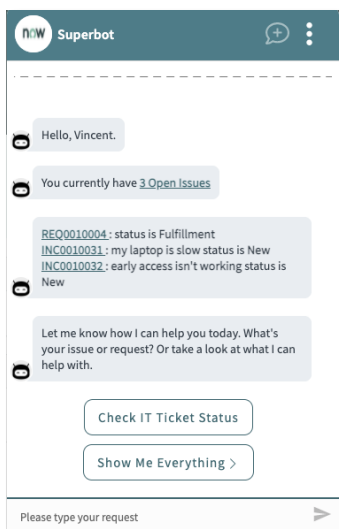
The greeting also provides an opportunity to simplify the user experience. You can showcase announcements up front, which may already address some potential user questions—such as announcing a system outage or upcoming holiday. If you have a sense of a topic that impacts many users, you can pin popular topics, called promoted topics, so that users immediately receive the information before they even begin typing. While it's not necessary for individual topics to have greetings, which would be repetitive to the user, it may be helpful to provide users with an example query and to call out any limitations or unsupported subjects.

Pro tip: If deflecting issues away from live agents is a desired outcome, refrain from presenting live agent support as a suggestion or promoted topic. Providing live agent support as a greeting option can drive up to 50% of conversations being routed to a live agent.

How ServiceNow sharpens this habit

ServiceNow Virtual Agent provides an out-of-the-box personalized greeting that addresses the user by name and an IT-tailored dynamic greeting that shows a list of their recent incidents. Greetings and promoted topics can be configured without any coding and tailored to different IT or HR portals.

now Superbot

Hello, Vincent. ← **User identification**

You currently have 3 Open Issues

REQ0010004 : status is Fulfillment
INC0010031 : my laptop is slow status is New
INC0010032 : early access isn't working status is New

Let me know how I can help you today. What's your issue or request? Or take a look at what I can help with. ← **Dynamic greeting**

Check IT Ticket Status ← **Promoted topic**

Show Me Everything >

Please type your request

HABIT 4

Create short, actionable interactions

Your conversation topics should be brief and lead to a tangible result. They should cover just a single topic or workflow. If a conversation includes too many questions or feels like it's never-ending, users may get frustrated and abandon the conversation or ask for a live agent. When a conversation is nearing completion, the result should be shared with the user for confirmation. For example, if the Virtual Agent creates an IT ticket for the user, the ticket record, plus a link, should be displayed to the user. After the conversation has ended, the Virtual Agent should ask if the user needs anything else and if they'd like to provide feedback.

Avoid topics that are broad and lack a direct action or result. For example, instead of generic topic names, such as "IT issues" or "Payroll," create more specific and actionable topics, like "Check outage information" or "Update payroll address." Your chatbot conversations should feel like a conversation with a live person, instead of like using a search bar.

To avoid confusion as to which topic should run when a user asks a question, make sure each topic is exclusive and non-overlapping. It may also help manage your natural-language understanding (NLU) models and intents accordingly. If you find yourself repeating the same steps between multiple topics, consider using a topic block—a reusable "mini-topic" that can be inserted into other topics. It's important to consistently test topics to make sure they flow as expected and that there are no dead ends.

Pro tips

1 Rely on as few branches as possible. If a decision node has too many branches, consider a streamlined topic design, or split it into separate topics.

2 Use Virtual Agent notifications, which can include action buttons, for an even more proactive and direct user experience.

3 Avoid creating chatbot experiences that only serve as a search interface. That should not be a chatbot design goal.
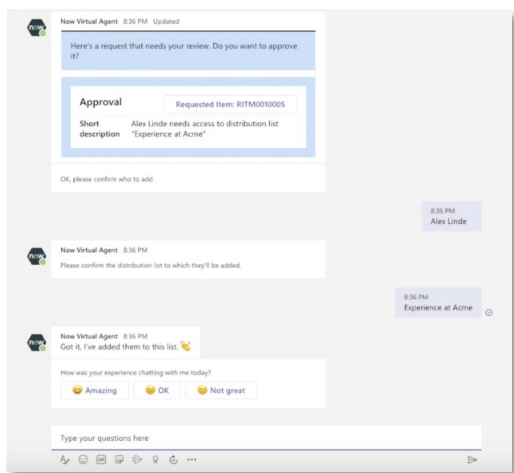
An out-of-the-box IT topic to approve a user for distribution list access via Microsoft Teams.

How ServiceNow sharpens this habit

ServiceNow provides out-of-the-box topics that cover some of the most pressing IT and HR issues, which can be swiftly utilized and modified, if needed, for faster time to value. Setup topics are also provided to ask users if they need anything else, ask for feedback, or provide help.

To create a chatbot that interacts with third-party systems, you can include IntegrationHub spokes into Virtual Agent topics and create rich format notifications that can be sent to integrated messaging apps. The topic designer also contains a robust topic tester.

HABIT 5

Rely on fallbacks

Every chatbot has its limits, and your chatbot will not address every single problem your users face. Attempting to do so will cause scope creep and topic management issues. Within a topic, it's not scalable to have branches for every single possibility—making it important to have a fallback topic to catch user questions that may fall outside of the intended scope.

When a topic is not found, fallbacks can help to:

• Search for the user query in a knowledge base or service catalog

• Apologize to the user for not being able to help and provide an alternative process

• Suggest routing to a live agent

Fallback topics will help ensure that the Virtual Agent won't immediately exit the user when they ask a question out of scope.

Pro tip: A search fallback can replace topics that manually point to different popular knowledge articles. Remember that topics should be actionable and not overly relied upon as a knowledge article provider.

How ServiceNow sharpens this habit

ServiceNow provides multiple fallback topics, including a search fallback topic, which searches your knowledge base. AI Search can also provide Genius Results which returns a single, contextual answer as opposed to a list of results.
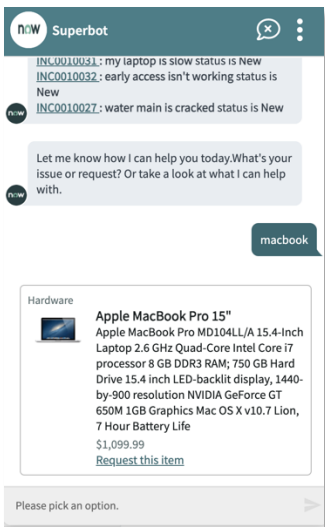
HABIT 6

Respect boundaries while maintaining a consistent tone

Your organization may have separate IT and HR experiences, each with its own chatbot. So, you will likely have separate IT and HR owners who can lend their subject matter expertise in creating tailored Virtual Agent experiences. But no one should have to worry about cross-impact between their respective areas—such as an IT admin accidentally viewing an interaction record about an employee's paycheck.

When managing IT and HR Virtual Agent experiences, it's important to use different scopes to manage topics. You can then assign user roles to these scopes and NLU models to maintain separate governance Additionally, you can categorize topics between IT and HR, which improves your topic analytics, covered in the next habit.

To ensure a consistent user experience, it's a good practice for IT and HR Virtual Agent authors to regularly collaborate with their respective portal owners. Between the two Virtual Agents, confirm that the overall language, branding, and other common elements are consistent. Users shouldn't feel like they are being passed between two different teams when they are interacting with the IT and HR Virtual Agents.

How ServiceNow sharpens this habit

ServiceNow separates out-of-the-box IT and HR topics into distinct scopes, while keeping setup topics in the global scope. The "Custom Greetings and Setup" page allows you to configure separate greeting experiences depending on the portal. To secure the interaction record and the chat transcript inside, you can use UI policies and access control lists (ACLs) to secure the transcript field.

Below is an example of an HR and IT Virtual Agent with different promoted topics yet with consistent language and branding.
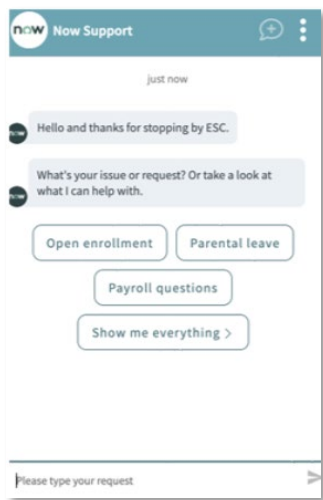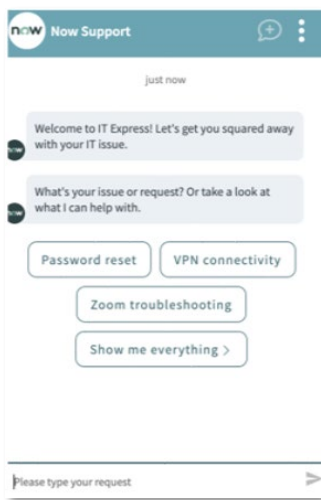
HR Virtual Agent   *IT Virtual Agent*

HABIT 7

Measure and iterate

You can't improve what you don't measure. Your organization should consistently measure the usage and success of your Virtual Agent so that you can track adoption and utility.

First, identify the metrics important for you and your organization. This may include usage, feedback scores, and resolution rate. Then, create a dashboard that helps you visualize these metrics. Your metrics should be able to inform where to focus to improve your chatbot experience. If there's a topic with high "incomplete" numbers, use that as an opportunity to improve or re-design the topic. If topics are not being used at all, consider retiring them or covering in a fallback instead.

Use topic categories to organize topics that cover different areas, like IT or HR, so that you can measure each area separately. Each time a change is made to a topic or a category, ensure it is measurable. If the desired metric improves, that's great! If not, then continue to iterate and improve.

Finally, consider measuring other parts of your organization to determine what areas your Virtual Agent can automate and resolve. For example, if you find that your organization consistently has incidents for printer problems, consider creating a Virtual Agent topic that lets users self-serve on this issue. Then you can measure the effectiveness of your Virtual Agent by monitoring case deflection.

Pro tip: Set up your conversational analytics early. It's a visual and impactful way to show key stakeholders the operational improvement achieved by your Virtual Agent.

How ServiceNow sharpens this habit

ServiceNow provides an out-of-the-box conversational analytics dashboard. You can measure users, conversations, topics run, resolve rate over time, and the prediction rate of your NLU. Plus, custom features allow you to create and measure your own set of metrics.
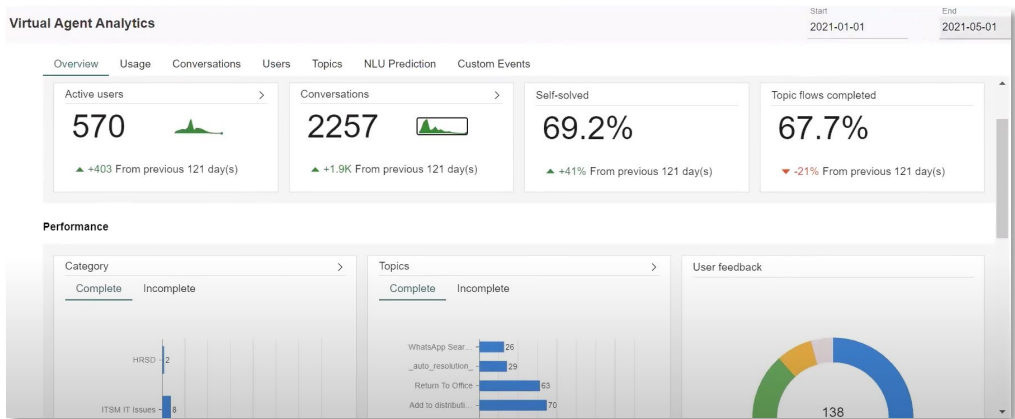
Summary

Creating a Virtual Agent can be a complex, but ultimately rewarding, experience. Use these seven habits as a roadmap and a reminder of good implementation practices. The ServiceNow Virtual Agent platform provides personalization, context, and intelligence to help you and your organization create a successful chatbot and improve efficiency. In turn, your Virtual Agent can drive conversation to resolution with a great user experience.

For more information

ServiceNow community forum for Virtual Agent and NLU

Product documentation for Virtual Agent

ServiceNow Virtual Agent webpage