

Create apps and workflows three times faster¹ with ServiceNow® App Engine

Simplify, accelerate, and scale your digital
experiences

¹ <https://www.servicenow.com/customers/desjardins.html>

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Introduction

Digital transformation has taken on a new urgency. Faced with rapidly shifting market conditions and a fundamental change in the way we work, companies need to innovate faster than ever. This digital shift is critical both for immediate survival and long-term success. By digitalizing processes, organizations empower their business partners and employees, drive efficiency, enhance customer experiences, create sustainable advantage, and open the door to new organizational models, business models, and revenue streams.

However, organizations are struggling to accelerate digital transformation. There's no shortage of digital opportunities, but creating new applications and automating processes is still a cumbersome activity requiring scarce software development skills and resources. As a result, IT backlogs are ballooning. And with IT unable to keep pace, shadow IT is rampant. This leads to an unmanaged sprawl of siloed applications that magnify risk, increase technical debt, and sap employee productivity and morale.

Here's the question. How do you eliminate the complexity of traditional application development and accelerate delivery? How do you break down silos to create a unified digital environment where everything works together? And how do you engage line-of-business resources to scale development, turning digital transformation into a team sport while avoiding the dangers of shadow IT?

Get the speed you need with ServiceNow® App Engine

The Now Platform quickly and seamlessly connects your business with out-of-the-box IT Workflows, Employee Workflows, and Customer Workflows. But it doesn't stop there. By building your own unique [Creator Workflows](#) on the Now Platform, you extend the benefits of ServiceNow digital workflows across your entire enterprise. Powered by ServiceNow App Engine and IntegrationHub, Creator Workflows give you the speed you need to accelerate digital transformation and deliver consistent experiences that everyone loves.

With App Engine's low-code development and configuration approach, anyone can build powerful apps fast. App Engine removes the complexity with proven out-of-the-box capabilities that deliver consumer-grade experiences, optimize processes, and simplify 3rd-party integration. And by leveraging built-in collaboration tools, delegated development, and role-based access, you can empower citizen developers while ensuring IT visibility and providing non-intrusive IT support.

Because App Engine is part of the Now Platform, developers can easily access core capabilities such as self-service catalogs,

Accelerate digital transformation

Develop apps fast with low-code development tools—while still getting the full power of advanced coding when you need it.

Scale development across your business

Empower citizen developers while providing non-intrusive guardrails for what is developed and released.

Eliminate app sprawl and shadow IT

Deploy a scalable, reliable, and secure platform where every line of business can easily build their own apps within a non-intrusive governance framework.

Give users an experience they love

Create a consistent, consumer-easy experience that turbocharges productivity and user satisfaction. Deliver responsive services anytime and anywhere on any device.

Shift from point apps to digital strategy

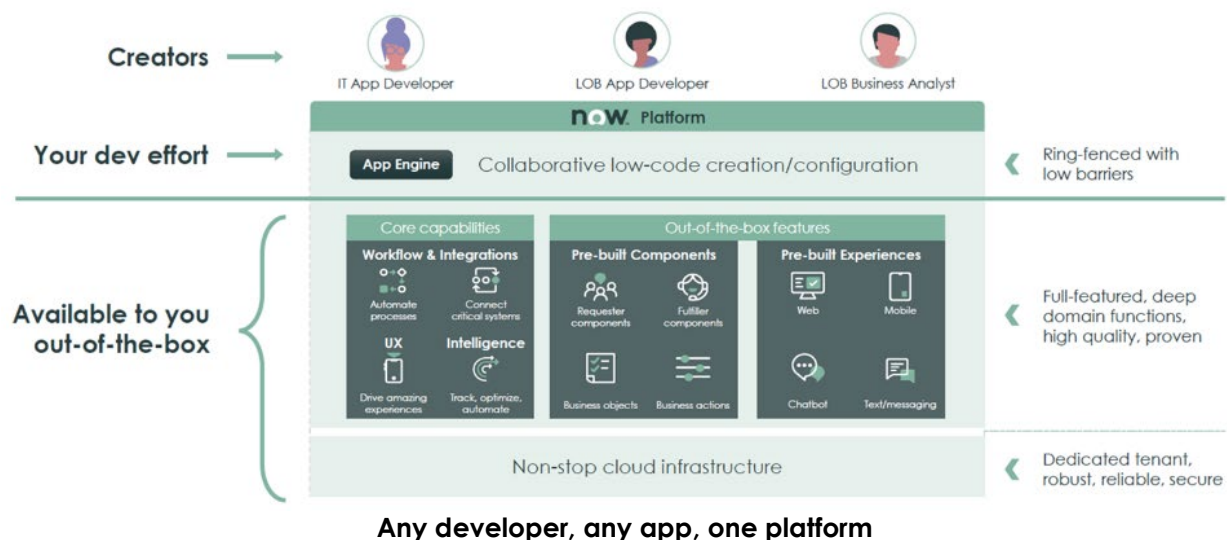
Create a connected environment where data, processes, and experiences are shared, unlocking synergies, insights, and value across your entire business.

Leverage the power of the Now Platform

Easily access ServiceNow's rich set of core capabilities, including self-service, workflows, mobile, chatbots, user interfaces, machine learning, analytics, reporting, and much more. Quickly build reusable components that you can share across applications, creating consistency and eliminating duplicate effort.

workflows, mobile apps, chatbots, machine learning, analytics, reporting, and more. This creates a connected development and collaboration environment where everything is shared—data, experiences, and processes—allowing you to move from tactical point applications to an enterprise-wide digital strategy. And with ServiceNow non-stop cloud infrastructure, you lower risk with a robust, reliable, and secure environment that scales to millions of users.

While App Engine's low-code tools and pre-built components turn your entire business into a high productivity engine for digital transformation, pro coders aren't left behind. App Engine gives pro developers direct programmatic access to the Now Platform when they need it and includes advanced development tools that boost productivity. And pro coders can still leverage the power of App Engine's low-code tools and pre-built components, so they spend their time developing high-value business functionality instead of recreating application infrastructure and existing capabilities.



Want to know more? Let's take a deeper look at what App Engine can do for your organization.

Accelerate and scale low-code development

With [App Engine Studio](#), App Engine's low-code development environment, anyone can quickly build high-quality, low-code apps. It's the perfect way to innovate quickly, delight users, and scale development with citizen developers. Simply choose an app template, fill in a few parameters, and press the "continue" button. App Engine Studio builds the app automatically, complete with data, experiences, automation, and security. You can also easily modify template-generated apps with little or no code, or create completely new apps from scratch. App Engine Studio comes with [prebuilt app templates](#) for a range of widely applicable use cases, including document approvals, event registration, inventory tracking, time-off requests, case management, request management, team contracts, and more.

Create your data foundation quickly and easily

App Engine Studio app templates come with default data tables—everything they need to deliver baseline application functionality. Users can easily edit these tables or add new tables

using an intuitive Table Builder. This includes adding and deleting columns, changing column types, names, and display labels, and setting default values. They can also create tables by importing spreadsheets, making it simple to automate existing manual spreadsheet-driven workflows.

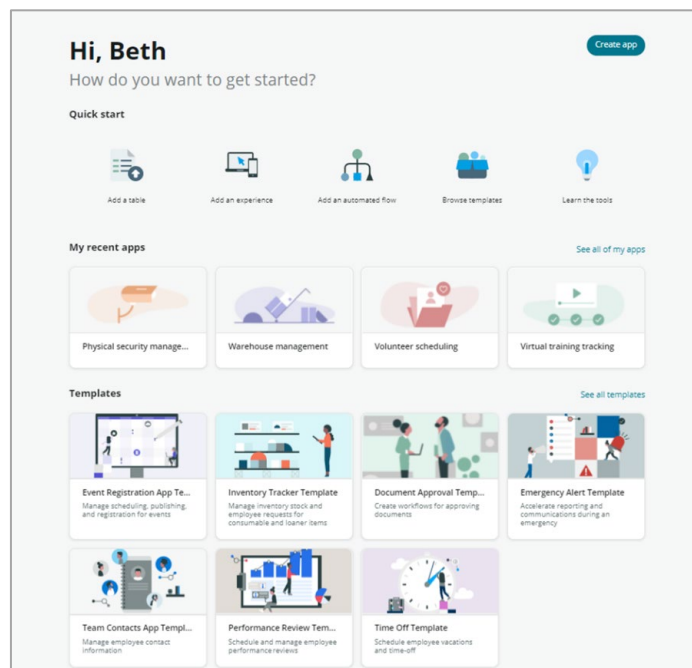
And with App Engine Studio, you're not limited to siloed application data. Creators can use Table Builder to access and extend existing tables on the Now Platform, and can specify which tables and columns they want to share with other applications.

Deliver great experiences out of the box

Experiences are role-based user interfaces that allow end users to interact with your app. Using App Engine Studio, you can easily add experiences to your app by following a few simple steps. For example, you can create a basic portal just by specifying the portal name and description, along with the URL and roles that can access the portal. You can also tailor these experiences using App Engine tools such as [UI Builder](#) and [Mobile Studio](#), all of which can be launched in context from App Engine Studio or can be used as standalone development tools. We'll be talking about UI Builder and Mobile Studio in more detail later in this document.

App Engine Studio supports several distinct experience types, including the following:

- **Configurable Workspaces** provide agents, case managers, help desk professionals, and managers with a unified interface to help answer end-user questions and resolve end-user problems.
- **Portals** are sites where users can find information, submit requests, and complete other business tasks. Portals created in App Engine Studio include multiple pages by default, including landing, login, article, catalog, request tracking, search, and settings pages.
- **Catalog items** let users request an item or service.
- **Mobile** experiences allow users to access apps from a native ServiceNow mobile app.



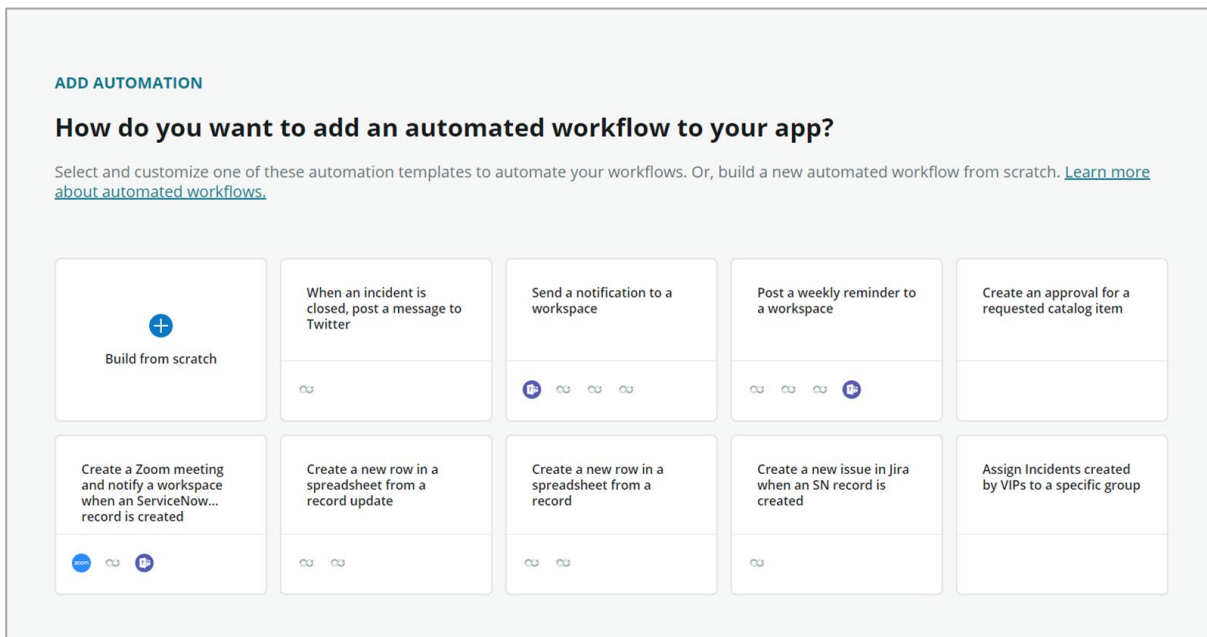
Note that App Engine Studio app templates automatically create a set of default experiences out of the box that you can adapt to your specific business needs, accelerating time to value.

Automate your apps with out-of-the-box workflow templates

App Engine Studio puts the power of ServiceNow digital workflows at your fingertips. By automating your workflows, you streamline the user experience, increase productivity, track progress, and strengthen your business processes. And it's so simple that anyone can do it. Simply choose from a range of flow templates for common automation activities—such as requesting approval—and let the wizard guide you through configuring the workflow in a matter

of minutes. And App Engine Studio app templates also include flows, providing workflow automation out of the box.

Want to adapt template-generated workflows to your needs? Launch ServiceNow® [Flow Designer](#) in context from App Engine Studio to edit the workflow or create a brand-new workflow from scratch. We'll talk more about Flow Designer later on.



Keep your apps secure

Maintain control over who can use your apps by adding roles in App Engine Studio. Only users with the appropriate roles can access your app. App templates come with predefined roles, giving you a security head start. You can also add or delete roles, or create completely new roles.

Empower citizen developers while maintaining oversight

App Engine Studio lets you scale development across your entire business while establishing guardrails and enterprise standards. You can easily choose which users have access to App Engine Studio, and you can also review apps created by citizen developers before the apps are put into production. When a developer is ready to deploy their app, they simply press 'Submit' and a deployment request is automatically sent to the IT team. The reviewer can then automatically move the app to your test or staging environment, publish the app to your production environment, or reject the app, giving you confidence in the quality of the apps you release and deploy.

A powerful integrated development environment for pro coders

ServiceNow® [Studio IDE](#) gives professional developers a unified, streamlined development environment to code, debug, and publish apps. With Studio IDE, developers can manage all of their source files in one place, switch between app versions, and promote applications to production with a single click. It also includes powerful source control capabilities, including integrating with leading source code repositories.

Easily create or import apps

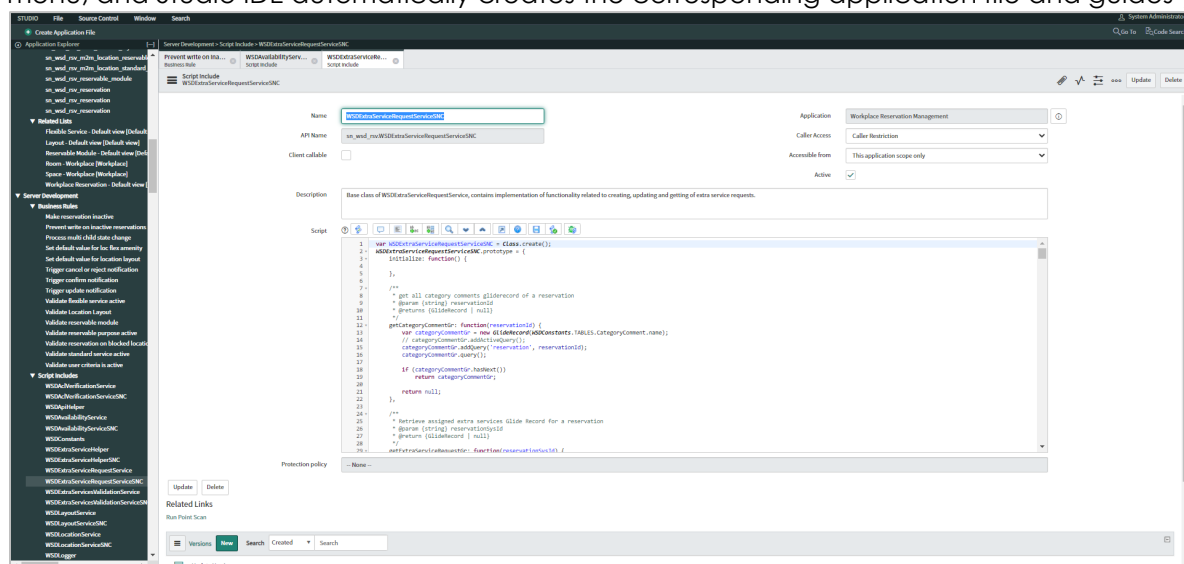
Creating a new app is as simple as specifying the app name and a few parameters. Studio IDE automatically generates the app context and scope, giving you an instant framework where you can add your application files. You can also import and customize existing apps, including out-of-the-box ServiceNow products and Store apps², as well as custom global and scoped apps that you have already developed.

From low code to pro code

With Studio IDE, you can also open and edit apps created with App Engine Studio and Mobile Studio. This allows you to leverage the simplicity and speed of low code development, and then apply customizations where needed using the advanced capabilities in Studio IDE. The result? You develop apps faster, save critical development resources, and enable shared development models across citizen developers and pro coders. Studio IDE also supports delegated development, allowing you to delegate particular types of development—for example, forms—to specific citizen developers.

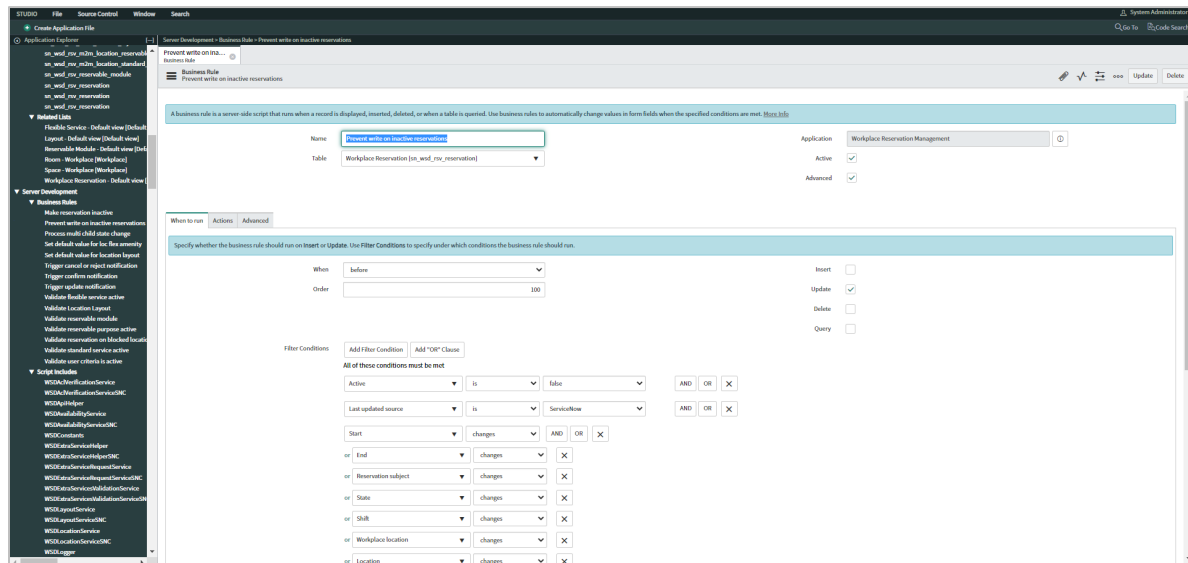
Create, edit, and debug all of your files in one place

Studio IDE provides comprehensive support for ServiceNow development artifacts, including tables, forms and lists, business rules and UI actions, menus and navigation modules, access controls, and reports. Simply choose the type of file you want from the left-hand accordion menu, and Studio IDE automatically creates the corresponding application file and guides you



² Store apps can only be customized if they are tagged as customizable by the app publisher.

through configuration and scripting. There's also a powerful script debugger where you can step through your code, inspect variables, and set breakpoints. And switching from file to file has never been easier, with a structured application explorer and built-in search tools.



Powerful source code management

Studio IDE integrates out-of-the-box with Git repositories, providing rich source code management for version control, including branching. You can easily switch between application versions for bug fixes and enhancements, and you can commit changes with just a few clicks without ever leaving your development environment. And connecting to a new Git repository is quick and easy—just create an empty repository, give Studio IDE the URL, username, and password, and Studio IDE automatically populates the repository for you.

Out-of-the-box DevOps pipeline integration

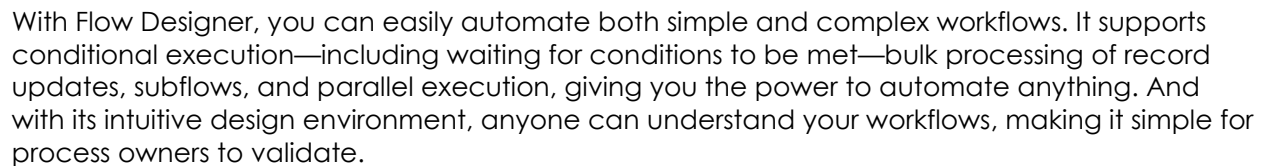
Studio IDE provides out-of-the-box integrations with Azure Pipelines, Jenkins, GitLab, and GitHub Actions, as well as APIs to connect to other CI/CD pipelines.

Publish in seconds

With Studio IDE, you can promote apps to production with a single click. And, if you have appropriate permissions, you can also publish apps directly to the [ServiceNow Store](#).

ServiceNow [Flow Designer](#) lets you automate and integrate any business process as a digital workflow across departments, systems, and people. Its intuitive graphical tools make it easy for both pro-code developers and low-code business analysts to create workflows, leveraging prebuilt components and — building their own reusable components.

Flow Designer gives you an intuitive graphical environment that dramatically simplifies workflow creation. Simply start by defining a trigger—such as a record change, service catalog request, or incoming email—and then add flow logic and actions to create your workflow. Flow Designer comes with a wide range of out-of-the-box actions, including actions to handle emails, submit service catalog requests, update records, generate notifications, send SMS messages, and more.



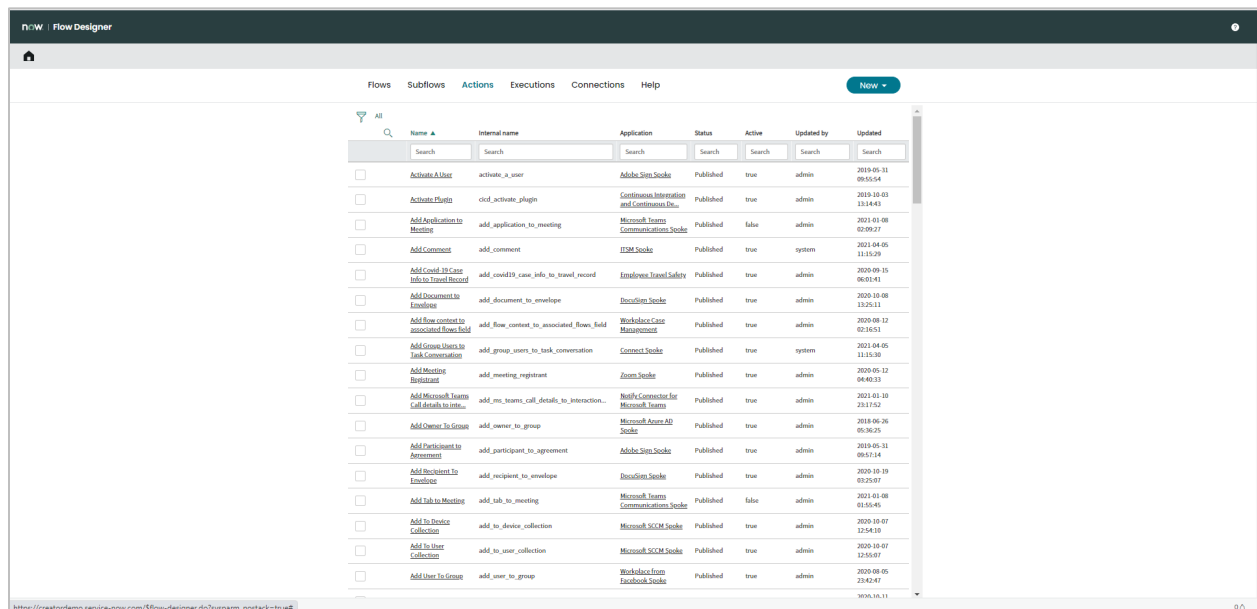
Flow Designer lets you create reusable components. This allows you to build up a library of standard, reliable processes you can incorporate in all your flows, rather than spending unnecessary time recreating the same subflow again. It's also a great way to empower citizen developers, shielding them from the complexity of advanced workflow logic. These reusable components include both custom actions—such as updating multiple tables or executing a script—and subflows.

Handle complex data with ease

Rather than forcing you to navigate complicated data structures, Flow Designer allows you to easily drag and drop data directly into your flows. Each time you add an action to your flow, Flow Designer automatically creates a data element (data pill) that contains the action's outputs and then maintains that pill for the duration of the flow. You can then reuse this data in your flow simply by dragging and dropping the data pill onto an action, subflow, or flow logic condition.

Seamlessly connect your apps with workflow spokes

Want to expose the capabilities of your app to other apps within the same ServiceNow instance? Workflow spokes provide an easy way to do this. Spokes are collections of subflows and actions that other apps can invoke, giving them access to services in your app. Spokes allow subject matter experts to create easy-to-use interfaces while shielding other apps from the underlying implementation. Many off-the-shelf ServiceNow solutions come with spokes, including ITSM, Customer Service Management, Field Service, Predictive Intelligence, and more. For example, to create an incident from your app, simply trigger the *Create Incident* flow in the ITSM spoke. Some ServiceNow Store apps also include spokes, simplifying integration with these apps as well.



The screenshot shows the ServiceNow Flow Designer interface. At the top, there's a navigation bar with 'Flows', 'Subflows', 'Actions', 'Executions', 'Connections', and 'Help'. Below this is a search bar and a 'New' button. The main area displays a table of flows with columns: Name, Internal name, Application, Status, Active, Updated by, and Updated. The table lists various flows such as 'Activate A User', 'Activate Plugin', 'Add Application to Meeting', 'Add Comment', 'Add Covid-19 Case Info to Travel Record', 'Add Document to Envelope', 'Add Flow context to associated flow field', 'Add Group Users to Task Conversation', 'Add Meeting Registration', 'Add Microsoft Teams Call details to interaction...', 'Add Owner to Group', 'Add Participant to Agreement', 'Add Recipient to Envelope', 'Add Task to Meeting', 'Add to Device Collection', 'Add to User Collection', and 'Add User to Group'.

Name	Internal name	Application	Status	Active	Updated by	Updated
Activate A User	activate_a_user	Adobe Sign Spoke	Published	true	admin	2019-05-13 09:55:54
Activate Plugin	cid_activate_plugin	Continuous Interaction and Continuous Dis...	Published	true	admin	2019-10-03 13:14:43
Add Application to Meeting	add_application_to_meeting	Microsoft Teams Communications Spoke	Published	false	admin	2021-01-08 02:09:27
Add Comment	add_comment	ITSM Spoke	Published	true	system	2021-04-05 11:15:29
Add Covid-19 Case Info to Travel Record	add_covid19_case_info_to_travel_record	Indevon Travel Safety	Published	true	admin	2020-09-15 06:01:41
Add Document to Envelope	add_document_to_envelope	DocuSign Spoke	Published	true	admin	2020-10-08 13:25:11
Add Flow context to associated flow field	add_flow_context_to_associated_flow_field	Workplace Case Management	Published	true	admin	2020-08-12 02:16:51
Add Group Users to Task Conversation	add_group_users_to_task_conversation	Connect Spoke	Published	true	system	2021-04-05 11:25:30
Add Meeting Registration	add_meeting_registration	Zoom Spoke	Published	true	admin	2020-05-12 04:40:33
Add Microsoft Teams Call details to interaction...	add_ms_teams_call_details_to_interaction...	Web/Connector for Microsoft Teams	Published	true	admin	2021-01-10 23:17:52
Add Owner to Group	add_owner_to_group	Microsoft Azure AD Spoke	Published	true	admin	2018-06-26 06:39:25
Add Participant to Agreement	add_participant_to_agreement	Adobe Sign Spoke	Published	true	admin	2018-05-11 09:57:14
Add Recipient to Envelope	add_recipient_to_envelope	DocuSign Spoke	Published	true	admin	2020-10-13 02:24:07
Add Task to Meeting	add_task_to_meeting	Microsoft Teams Communications Spoke	Published	false	admin	2021-01-08 01:55:45
Add to Device Collection	add_to_device_collection	Microsoft SCM Spoke	Published	true	admin	2020-10-07 12:54:10
Add to User Collection	add_to_user_collection	Microsoft SCM Spoke	Published	true	admin	2020-10-07 12:55:07
Add User to Group	add_user_to_group	Workplace from Facebook Spoke	Published	true	admin	2020-08-05 23:42:47

Role-based execution and multi-tenant support

Flow Designer gives you complete control over who can trigger flows and what data your flows can access, including fine-grained control over who can save, test, and publish flows. A flow can run as a system administrator or in the context of the user who triggered its execution. For more granularity, assign a role to the flow and the Now Platform enforces the same role-based controls as if the actions were being performed by an end user with that specific role. Flow Designer also supports domain separation, allowing each of the tenants on your ServiceNow instance to have their own flows that aren't shared with other tenants, which is ideal for MSPs and large enterprises.

Develop and test in a unified workspace

You can test your flows directly in Flow Designer before you publish them. Step through flows, examine data, and validate actions—such as sending notifications—using the same intuitive tools you use to develop flows. You can also create automated tests for your flows using the ServiceNow® [Automated Test Framework](#), allowing you to easily retest your flows after upgrades and other development activities.

Natively integrate ServiceNow with anything

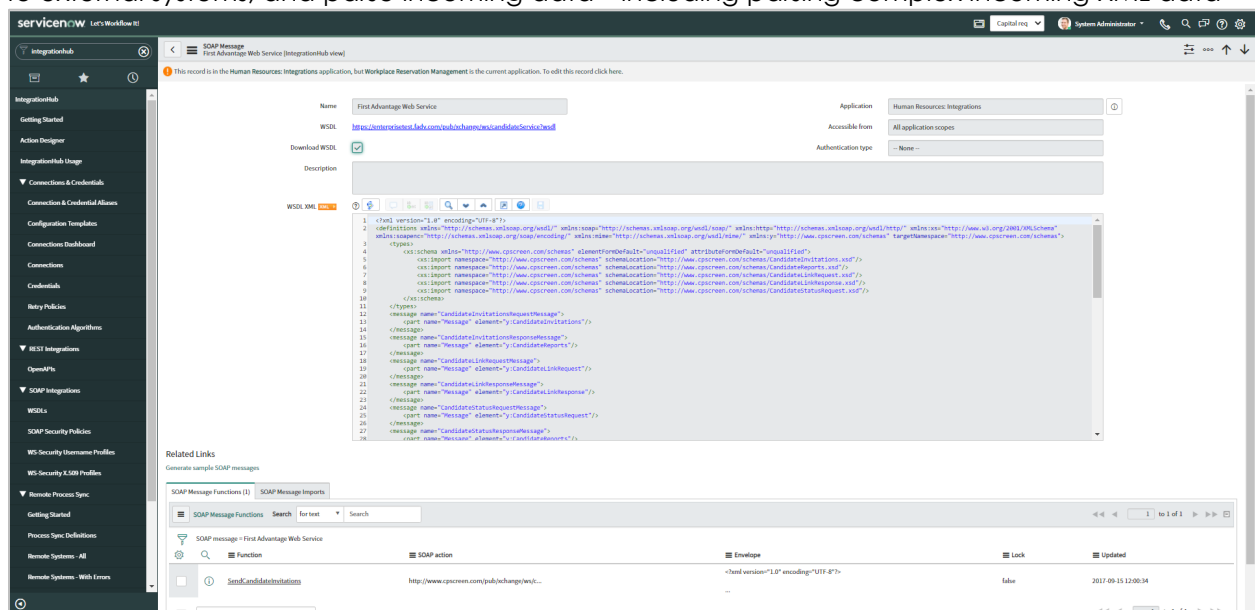
With ServiceNow® [IntegrationHub](#)³, you can easily connect ServiceNow to third-party systems using a constantly growing library of pre-built integrations in the ServiceNow Store. These out-of-the-box integrations support thousands of third-party system actions, and you can also quickly build custom integrations with simple, intuitive tools.

Connect in minutes with out-of-the-box IntegrationHub spokes

IntegrationHub comes with more than 150 out-of-the-box spokes for IT vendors and service providers, including Microsoft, SAP, Oracle, Amazon, Google, Dropbox, Twitter, Adobe, Slack, DocuSign, and many more. Just like other spokes, you can quickly and seamlessly integrate these spokes into your workflows using Flow Designer, allowing you to integrate with third-party systems without leaving your development environment or learning new skills.

Quickly build custom integrations with external systems using simple, intuitive tools

Once you activate IntegrationHub, it automatically adds integration steps into Flow Designer, allowing you to build new integrations simply by creating new Flow Designer actions. These actions allow you to build parameterized JSON and XML payloads, send REST and SOAP requests to external systems, and parse incoming data—including parsing complex incoming XML data



and mapping it to Flow Designer data pills without having to write scripts. You can also handle

³ May require a separate license

inbound requests from external systems by binding flows to the ServiceNow REST API, which creates data pills that you can process in Flow Designer using no-code graphical tools or scripts.

Integrate with your IT network to automate remediation flows and other actions

In addition to integrating with external systems, IntegrationHub can also integrate with systems, applications, and services in your IT network via the ServiceNow Management, Information, and Discovery (MID) server. This allows you to easily automate remediation and other actions—such as resetting a server or adding a user to an ACL—using Flow Designer. In addition to JSON, XML, REST, and SOAP, these MID Server actions also support JDBC, SSH, and PowerShell.

Easily manage your connections with external systems

IntegrationHub comes with a connections dashboard that allows you to create, configure, and edit connections and view connection details using a simple, intuitive interface. It also allows you to create reusable credential and connection configuration templates for multiple types of authorization, including basic logins, API-based access, OAuth JWT Bearer and Authorization Code grants, and other custom authorization mechanisms.

IntegrationHub			
Name	Type	ID	
AD	Connection and Credential	wv_inf_spokeAD	
admin	Credential	admin	
admin_app	Credential	admin_app	
AdobeSign_HR_Group	Connection and Credential	wv_adobeSign_spokeAdobeSign_HR_Group	
AsanaAD	Connection and Credential	wv_asana_inf_spokeAsanaAD	
CCD	Credential	wv_cccd_spokeCCD	
DocuSign	Connection and Credential	wv_docuSign_spokeDocuSign	
Fake App Engine Studio Credential	Credential	Fake_App_Engine_Studio_Credential	
FB_Workplace_Alias	Connection and Credential	wv_fb_wp_spoke_FB_Workplace_Alias	
file_import	Credential	wv_fr_atfile_import	
GoogleAnalyticsAccountManagement	Connection and Credential	wv_ga_GoogleAnalyticsAccountManagement	
GoogleAnalyticsMeasurement	Connection and Credential	wv_ga_GoogleAnalyticsMeasurement	
GoogleAnalyticsReportingV4	Connection and Credential	wv_ga_GoogleAnalyticsReportingV4	
Google_NL	Connection and Credential	wv_nlp_sentiment_Google_NL	
IBMTranslation	Connection and Credential	wv_ibm_trans_spokeIBMTranslation	
IBMWatsonNLUtilities	Connection and Credential	IBMWatsonNLUtilities	
IBMWatsonNLLimits	Connection and Credential	IBMWatsonNLLimits	
IBMWatsonNLModels	Connection and Credential	IBMWatsonNLModels	
IBMWatsonNLPrediction	Connection and Credential	IBMWatsonNLPrediction	
IBM_Watson_NL	Connection and Credential	wv_nlp_sentiment_IBM_Watson_NL	
ibound_simulator	Credential	x_soc_demohub_ximibound_simulator	

Build stunning web experiences

With [UI Builder](#), you can easily create personalized workspaces and portals for your users using an out-of-the-box library of over 100 UI components. Leverage state-of-the-art WYSIWYG tools to build pages in minutes while still retaining full control with powerful coding tools.

My experiences

Display name	Created	URL path	App Shell UI	Application	Admin panel
AES Catalog Builder	2020-11-21 00:04:26	aes/catalogbuilder	UXR Blank AppShell	AES Catalog Builder	UX App Configuration: AES Catalog Builder Config
Visual Board Demo	2020-05-30 07:45:13	ux/vtb	Visual Board Demo App Shell	@devinc/sn-vtb	UX App Configuration: Visual Board Demo App Config
Inventory Tracker Workspace App Config	2021-08-03 10:53:14	x_snc_equipment_0-inventory-tracker/workspace	Agent Workspace App Shell	Equipment Tracking	UX App Configuration: Inventory Tracker Workspace Ap...
Inventory Tracker Portal App Config	2021-08-03 10:52:02	x_snc_equipment_0-inventory-tracker/portal	Portal App Shell	Equipment Tracking	UX App Configuration: Inventory Tracker Portal App Con...
Sample Doc Approval Portal	2021-05-17 12:01:52	x_snc_jstfiv-doc-approval/portal	Portal App Shell	Sample Doc Approval	UX App Configuration: jstfiv Portal Config
Time Off Request workspace	2021-05-17 14:35:14	x_snc_time_off_v_0/workspace	Agent Workspace App Shell	Time Off Request	UX App Configuration: Time Off Request workspace Config
Time Off Request portal	2021-05-17 14:35:13	x_snc_time_off_v_0/portal	Portal App Shell	Time Off Request	UX App Configuration: Time Off Request portal Config
Sample Doc Approval Workspace	2021-05-17 12:02:01	x_snc_jstfiv-doc-approval/workspace	Agent Workspace App Shell	Sample Doc Approval	UX App Configuration: jstfiv Workspace Config
Table Builder	2020-06-12 02:08:43	tablebuilder	TB App Shell	AES Table Builder	UX App Configuration: TB App Config
Base agent workspace	2020-07-13 14:50:17	demo/baseaw	Agent Workspace App Shell	Base Agent Workspace	UX App Configuration: Agent app config

Showing 1-10 of 10

20 rows per page

Help

- Getting started**
Welcome! Get started with the basics on UI Builder
- Using UI Builder**
Learn how to start configuring your experiences
- Building with components**
Find guidance on where and when to use a component
- Staying up-to-date**
Get the latest on updates, events, and releases
- Creating custom components**
Get training on how to build your own components

Lay out pages without writing a line of code

Start with a reusable page template or easily create your own page layout by adding containers to your page. Make your page as simple or complex as you like by applying layouts to containers, nesting containers within containers, and creating tabbed containers. Then drag-and-drop prebuilt UI components into your containers to add functionality such as buttons,

Time off request

Request time off

Your upcoming time off: 0

Time off taken this year: 0

Requests awaiting approval: 0

Recent requests

You haven't requested any time off yet. Create a new paid time off request to get started.

All requests

You haven't requested any time off yet. Create a new paid time off request to get started.

labels, lists, forms, data visualizations, and more.

Easily connect to server-side and external data resources

UI Builder makes it easy to bring data into your page by binding components to data resources. Simply choose the data source you need from a hierarchical list or add your own data source—such as a specific query on a table. You can bind to server-side data resources such as a record or user lookups, with UI Builder automatically transforming the data for use with your component. You can also access external data by binding it to a REST API.

Create, access, and update client-side data

UI Builder also allows you to handle local data resources. For example, if you're creating an employee signup page, you can create a local data resource containing employee records and then expose that data to components on the page so that employees can sign up using their own information. For more advanced data manipulation requirements, you can also bind components to client scripts—for instance, to increment a date on a page.

A comprehensive event framework

Drive client-side actions and workflows by binding event handlers to events on components, data resources, or even your complete webpage. Different components come with specific events related to their function. For example, a button component only has a “button clicked” event, while other components have many events.

Events can be used for a wide range of actions and workflows, including executing client-side scripts. For example, events can be used to link a button to another webpage, reload data resources, display modal dialogs—for instance, to ask the user to confirm before a record is deleted—and much more. And because components can also maintain configurable client state information, they can also be used for stateful actions such as toggling colors or sequencing user input.

Deliver personalized, role-based experiences

UI Builder lets you create multiple page variants and tie these to user roles. For example, you can create one page variant for agents, and another for managers of agents. Both variants are accessed using the same URL, with the selected variant determined by a configured set of audiences. You can also add other conditions to refine which variant is displayed—for instance, based on encoded query parameters attached to the URL.

Your webpage, your style

UI Builder comes with a fully featured WYSIWYG style editor that lets you edit CSS properties at the component, container, and page level. You can instantly preview style changes on your page, making it easy to tune the appearance. You can also define reusable themes and apply them to add brand colors and other standard visual stylings.

The power of code when you need it

Using UI Builder's powerful graphical design environment and out-of-the-box components, you can easily create rich web experiences. But if you need to further customize your web pages, UI Builder also includes a rich-text editor that supports CSS, HTML, JavaScript, XML, and JSON, giving you total control over your webpage appearance and functionality.

Engage users anywhere and on any device

Help your users be more productive and get work done on the go with mobile apps that work seamlessly with the Now Platform. With ServiceNow® [Mobile Studio](#), anyone—including business analysts, solution architects, and non-technical staff—can build native iOS and Android mobile apps without writing a single line of code or needing an army of developers.

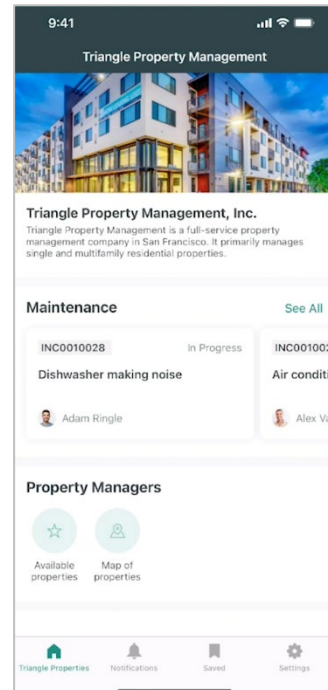
Build personalized, consumer-grade mobile experiences that delight your users

Instantly create an app, configure the navigation bar, and add applet⁴ launchers to give your users access to all the mobile tools and information they need. Quickly build applets by configuring out-of-the-box templates, including lists, forms, employee directories, maps, charts, and more. Then connect your applets to data sources in just a few steps. And it's just as easy to link your applets together to create intuitive navigation flows—all it takes is a few parameters.

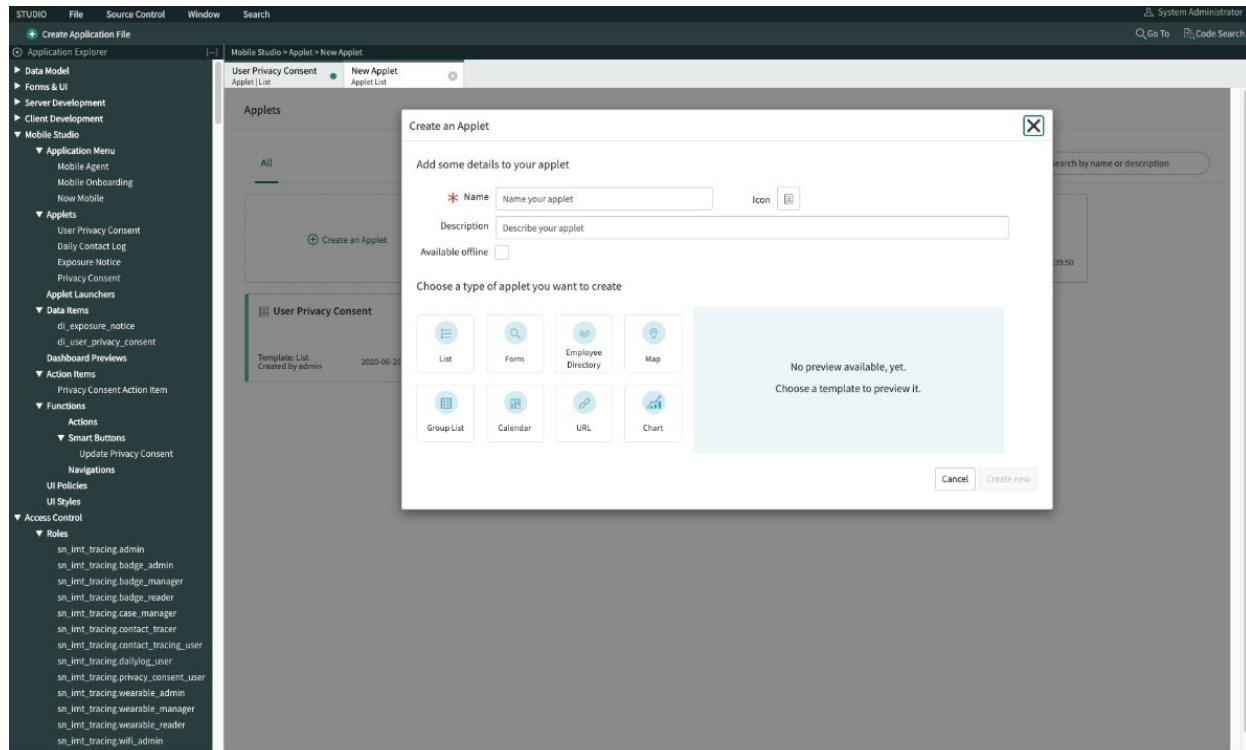
And with Mobile Studio, you can do even more. Create grouped lists and embed lists into forms. Highlight list items based on their status. Give your users AI-powered search capabilities. Send push notifications and campaign messages. Enable voice search, or let users search by taking a picture. Use smart buttons to interact with other apps on the mobile device, such as phone or email. Leverage ServiceNow data to display asset locations on maps or show field staff where to go for their next job. It's all part of how ServiceNow helps you create great experiences that deliver outstanding business results.

Accelerate development

With Mobile Studio's no-code environment, you can rapidly build rich mobile apps simply by configuring components. The intuitive Mobile Studio interface provides detailed guidance every step of the way, with configuration forms and wizards that make development easy. Mobile Studio gives you the power to build the most complex mobile native apps, while making app development so simple that anyone can do it. This means that you can scale development across your entire business, empowering business analysts and other citizen developers to create mobile apps for their lines of business.



⁴ Applets are configurable components of a mobile app containing one or more screens



Leverage device hardware capabilities

Mobile Studio gives you comprehensive access to device hardware capabilities, so that you can simplify work for your users. Easily identify equipment and other assets by scanning barcodes and QR codes. Take photos and automatically attach them to ServiceNow records. Use GPS information to find the nearest resources or navigate between jobs. And easily configure swipe actions to simplify and streamline your app experience.

Keep your users connected even when there's no mobile coverage

Mobile Studio supports offline read and write, including automatic resynchronization when a user reconnects. Offline data is securely encrypted on the user's device. And you have full control over offline behavior, including selecting the specific applets you want to work offline, which fields should be displayed or hidden, and what actions users can perform.

Add branding to reflect your organizational identity

With Mobile Studio and [Mobile Publishing](#)⁵, you can request implementation of your company's visual identity, and ServiceNow will build, maintain, and distribute a custom branded app via your preferred method.

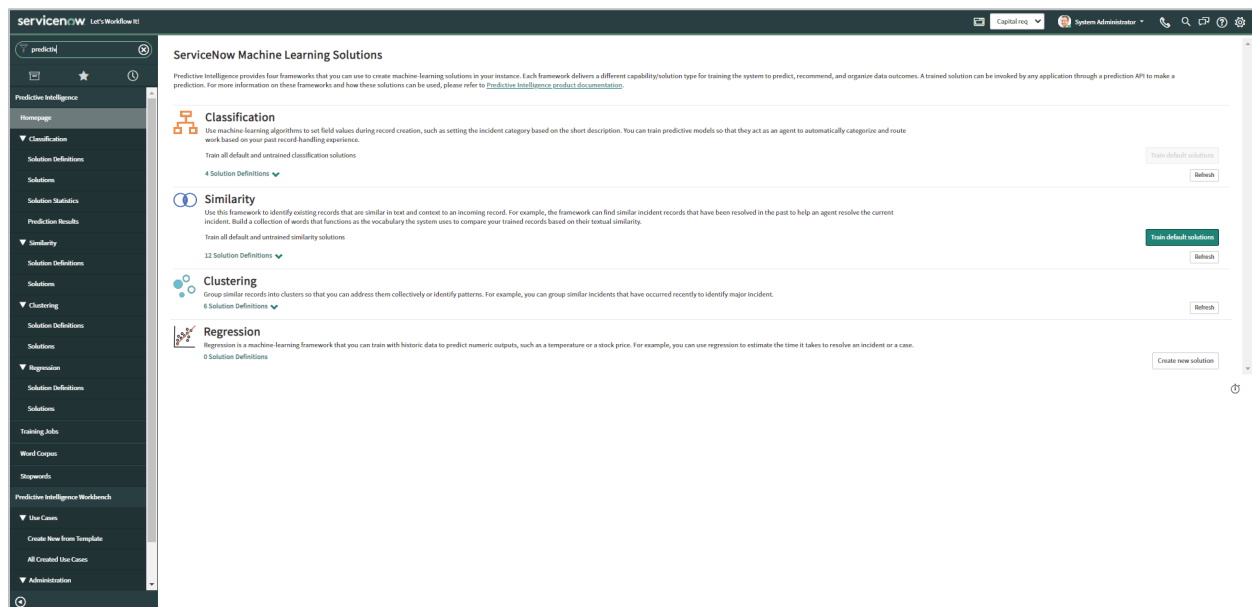
⁵ Mobile Publishing may require a separate license

Let your business work smarter and faster with Now Intelligence

With [Now Intelligence](#), we've embedded AI and analytics directly into the Now Platform, helping everyone in your business to work smarter and make better business decisions. And with App Engine, you can leverage the full power of Now Intelligence in your apps, including chatbots, intelligent work routing, contextual recommendations, AI Search, performance management, and more.

Create intelligent workflows with Predictive Intelligence

Help your business work smarter by incorporating ServiceNow® [Predictive Intelligence](#) into your apps. Predictive Intelligence is patented artificial intelligence (AI) technology that lets you automate repetitive decisions, provide relevant contextual content, and uncover hidden insights in real-time. With Predictive Intelligence, you can automatically classify work and route it to the right people, push relevant content and recommendations to users so they solve issues faster, uncover new opportunities to automate and optimize your workflows, and more.



Predictive Intelligence uses machine learning to continuously analyze your operational data, identifying patterns and similarities. It then uses these to make predictions and recommendations. Think of it as the ultimate virtual assistant, integrating seamlessly with ServiceNow workflows to eliminate time-wasting manual work and surface the information your users need when and where they need it.

Automatically get work to the right place

With the Predictive Intelligence classification framework—one of four machine learning frameworks that power Predictive Intelligence—you can automatically route work to the right team. Train Predictive Intelligence using your historical data, and it learns how to accurately categorize and route future work. You help your business reduce manual work and respond faster, saving time and money. And Predictive Intelligence's classification capabilities aren't limited to routing work. You can predict the value of any field in a record from other fields

provided that a correlation exists. For example, you can prioritize work based on its description, or automatically assess suspicious emails to see if they pose a threat.

The screenshot shows the 'Classification Definition' form in the ServiceNow Predictive Intelligence interface. The form is titled 'Auto assignment group for HR Cases' and is currently active. It includes several steps for configuration:

- STEP 1:** Select a word corpus that is relevant to your solution, or create a new word corpus so you can select it from this form.
- STEP 2:** What are you interested in predicting? (Table: HR Case [sn_hr_core_case], Output Field: assignment_group)
- STEP 3:** What input data is helpful to predict the output field? (Fields: short_description, description_opened, title_opened, location.name, hr_service)
- STEP 4:** What historical data do you want to use to train the solution and how frequently do you want to retrain it? (Filter: 207 records match condition: short_description ISNOT EMPTY AND description ISNOT EMPTY AND state = 'active' AND assignment_group ISNOT EMPTY)

The form also includes a 'Related Links' section with tabs for 'ML Solutions', 'Training Request Schedules', 'Advanced Solution Settings', and 'Groupby solutions'. Below this is a table of solutions, which currently shows 'No records to display'.

Empower users with smart recommendations

Predictive Intelligence also lets you push relevant content to your users in context. With the Predictive Intelligence similarity framework, you can automatically surface historical data and knowledge base articles to identify useful information based on its similarity to a current task. For example, this is how Agent Assist autonomously pushes similar historical incidents and pertinent knowledge base articles to service desk agents when they are working to resolve an incident. By incorporating smart recommendations into your apps, you help your users benefit from the cumulative experience of their organization, making work faster and more accurate.

Predict the future

Use Predictive Intelligence to forecast future status and performance based on historical data. With the Predictive Intelligence regression framework, you can predict future numerical values based on historical numerical data. For example, you can estimate how long it will take to complete a task, predict a future workload size, or forecast SLA compliance based on historical trends.

Uncover critical issues and opportunities for improvement

Predictive Intelligence lets you quickly identify and respond to critical issues. Using the clustering framework, you can highlight groups of similar records to uncover and act on systemic problems—for example, repeated safety issues associated with particular types of equipment, or potential major incidents based on multiple real-time user reports. You can also dynamically segment or group your operational data to identify opportunities for automation, such as high-volume user requests that are candidates for ServiceNow workflows or Virtual Agent conversations. And because cluster analysis uses unsupervised machine learning, it's constantly finding and surfacing new patterns as your operational data evolves, unlike static analysis tools.

Deliver and refine AI quickly without special skills

Although Predictive Intelligence is innovative AI, you don't have to be a rocket scientist (or a data scientist) to use it. It's easy to configure and even easier to use. For example, to create and train a classification model, you just need to build a collection of words and phrases (corpus) that the model uses to look for textual similarity, choose the table field you want to predict and the fields used for prediction, and submit the model for training. After training, you can then use the prediction model in the app you are building.

Easily incorporate predictions into your apps

Predictive Intelligence comes with out-of-the-box APIs and spokes, so you can integrate predictions directly into your apps and workflows with minimal effort.

Deliver instant service with Virtual Agent

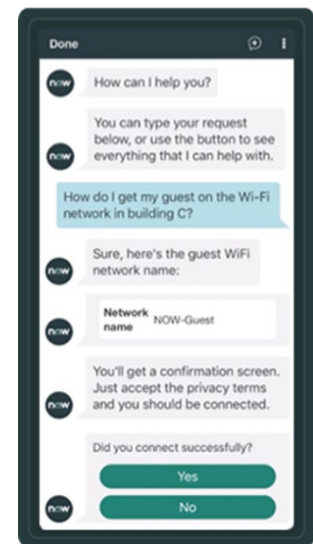
With [Virtual Agent](#), you can create intelligent chatbots, giving customers and employees instant answers while automatically handing off more complex inquiries to live agents. And because these chatbots run natively on the Now Platform, they can automate the resolution of routine issues and requests, reducing costs and offloading agents, so they remain focused on higher-value support activities.

Powerful Natural Language Understanding (NLU)

Virtual Agent uses advanced NLU to understand what people are saying. It has a vocabulary of over 3 million words—about 100 times as much as the average human—including underlying meanings, synonyms, and similarities. You can extend this vocabulary to add specific terms used in your organization, such as the names of systems or departments.

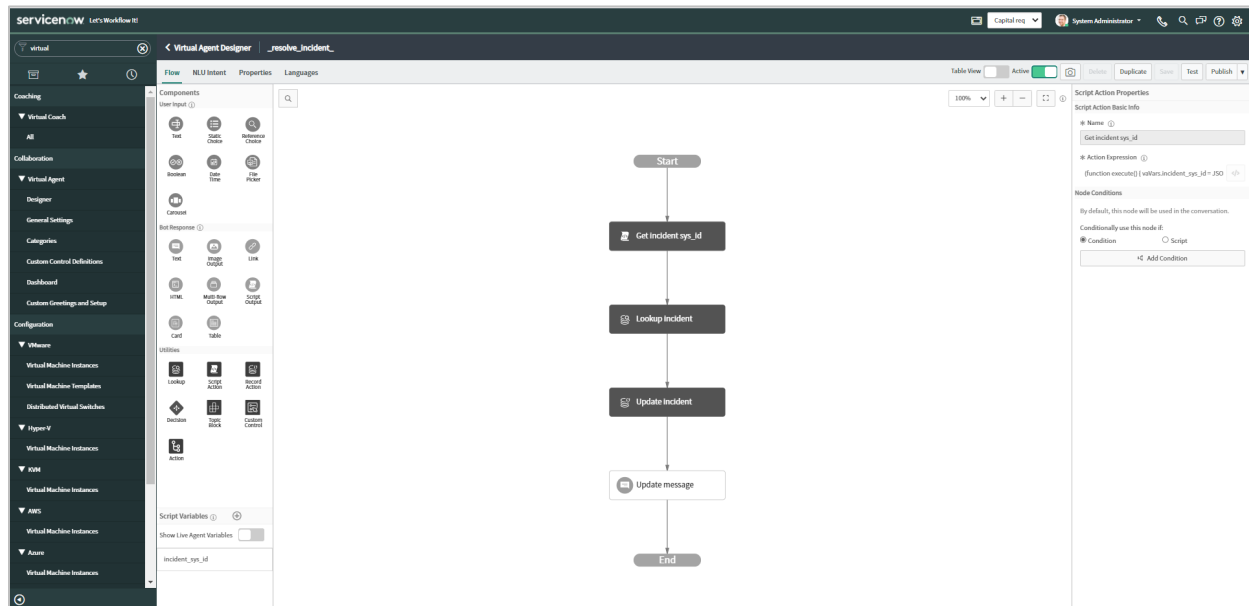
Using NLU Workbench, you can harness this vocabulary to let Virtual Agent understand what users are saying. Simply provide an intent such as *BookConferenceRoom* and provide examples of different user utterances—for example, "I need a conference room tomorrow." There's no need to understand the underlying NLU technology, and you don't have to provide every variation. If the user says it a different way, Virtual Agent is smart enough to figure it out. You can also use NLU Workbench to get a unified view of NLU models and relationships across your instance.

Virtual Agent also gives you a choice of NLU providers. While ServiceNow NLU is optimized to help you get the most out of Virtual Agent, Virtual Agent comes with out-of-the-box integrations with IBM Watson and Microsoft LUIS.



Create complete conversations

Virtual Agent isn't limited to handling individual user utterances. With Virtual Agent Designer, you can design topics to guide your users through complete dialog flows. And just like NLU Workbench, there's no need to understand the underlying technology. Just use drag-and-drop tools to create a conversation flow, and your job is done.



Turn words into action

Virtual Agent isn't just a good listener. It *does stuff*. Need to get a password reset link from another system or update a distribution list? Or automate a complete fulfillment workflow for ordering construction materials? Virtual Agent can do that. You can connect Virtual Agent to your existing ServiceNow workflows and IntegrationHub with just a few clicks, which means it can do just about anything you normally do with ServiceNow.

Seamless live-agent handoff

When Virtual Agent doesn't have the answer, it hands off seamlessly to a live agent, creating a streamlined end-to-end conversational experience. Agents get all the context they need for a flawless handover, including the complete VA conversation and pertinent information about the user, so there's no need to start from the beginning. You can also use Predictive Intelligence to route the conversation to the right agent. Your agents save time, and you eliminate customer frustration, improving satisfaction and increasing adoption.

Multichannel support

Meet your users wherever they are. Virtual Agent is self-service on overdrive anytime and anywhere—on the familiar ServiceNow web interface, ServiceNow mobile apps on Android and iOS, Microsoft Teams, WhatsApp, Facebook Messenger, Slack, and other leading collaboration platforms.

Analyze and improve workflow performance

ServiceNow® [Performance Analytics](#) gives your users clarity where it matters most. Monitor workflow performance trends in real-time to detect service bottlenecks before they happen,

reallocate service resources to meet current and predicted demand, identify areas for improvement, and accelerate results by aligning service delivery with your company's goals.

Align KPIs with business objectives

Performance Analytics' KPI Composer gives you and your business partners a structured environment to capture business goals, identify critical success factors, and define measurements that show actual business performance. For example, start with a broad business goal such as Customer Experience, break this down into critical success factors such as maintaining a 90% CSAT score, and then define measurements that support the goal —e.g. average CSAT score and percentage of CSAT surveys completed. Then use KPI Composer to link these measurements to actual indicators and reports, creating a complete Performance Analytics roadmap to achieve the business goal. You can even capture detailed instructions for new indicators and reports that you want your development team to create.

Easily create indicators and reports

Use intuitive forms and wizards to define your indicators and bind them to data sources. You can create indicators from individual metrics or complex formulas, create filter conditions — for example, which records to include when calculating the indicator — set the indicator frequency, and more. And creating and automating reports is equally easy, with dozens of report types ranging from simple line reports to dials, geographic maps, heat maps, and pivot tables. You can also use ServiceNow Ai-powered Natural Language Query (NLQ) capability to create reports and analyze data using plain-language requests, avoid the need to build conditions or search through lists and tables.

See your performance in real-time

Because Performance Analytics runs natively on the Now Platform, it has instant access to operational data, giving your business partners real-time visibility. Unlike standalone analytics tools, there's no need to wait hours – or even days – until data is exported to an external data warehouse.

Cut through the noise

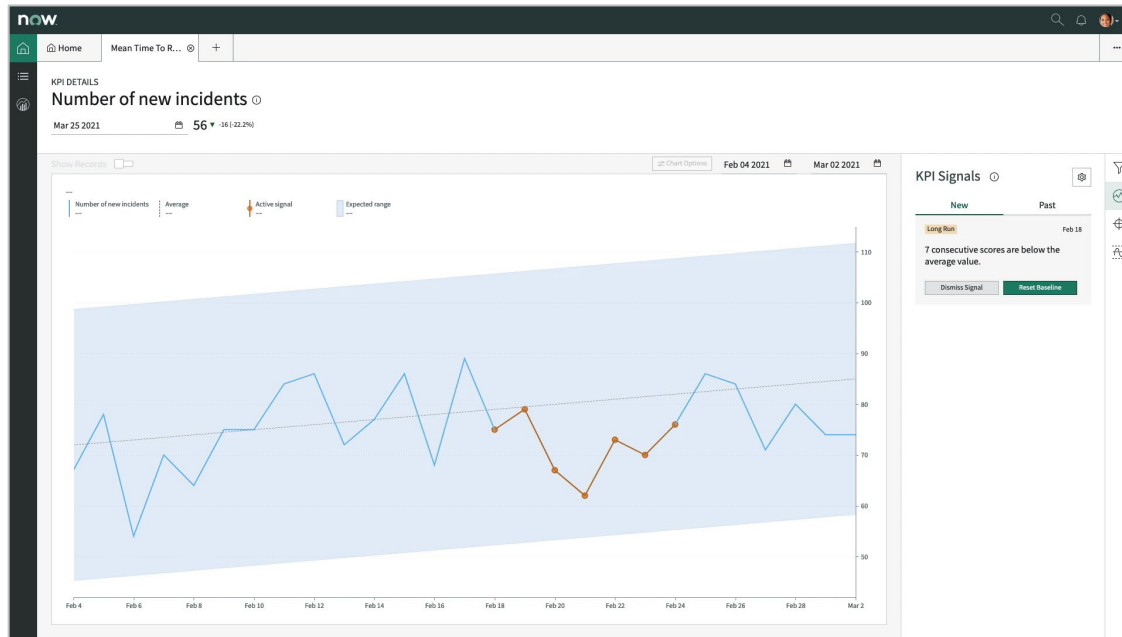
KPIs typically show a normal level of variation over time, creating noise. How do you cut through this noise and see what matters? With KPI Signals, you can. KPI Signal alerts you when there is a significant change in process behavior, using statistical analysis to identify important anomalies. This means you focus on real business issues, rather than wasting time chasing statistically insignificant changes. Think of it as active noise cancellation for KPIs.

Understand the future, not just the past

Performance Analytics includes powerful forecasting capabilities that predict future performance based on historical trends. This allows process and business owners to proactively address emerging issues — such as lack of resources, SLA non-compliance, or failure to achieve customer satisfaction targets – before they become crises.

Everything at a glance with powerful dashboards

Combine multiple reports and performance trends into role-based dashboards that give different audiences such as agents, team managers, process owners, and senior management the targeted information they need to make more informed business decisions.

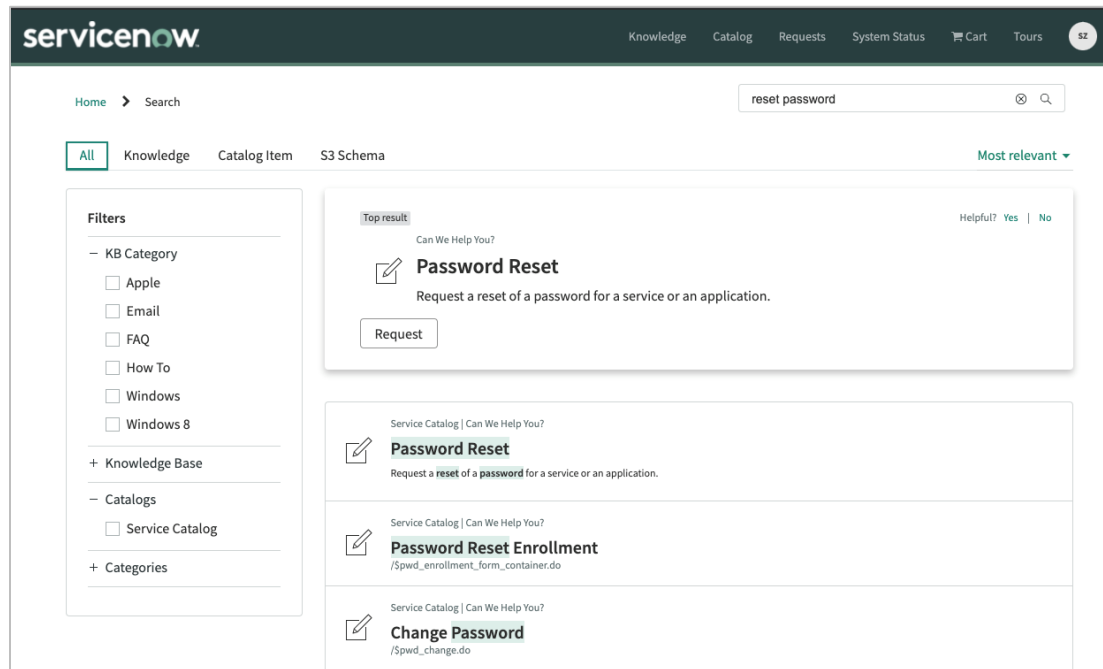


Make KPIs actionable by drilling into the details

With Analytics Hub, your users can look beyond the headline indicators and understand why things are happening and what they need to do about it. They can break down indicators by segment — for instance by request type or region — examine detailed trends, compare different segments, and even drill down to specific records to get insights into individual interactions.

Deliver consumer-grade search experiences

Go beyond simple keyword searches. ServiceNow gives your employees, partners, and customers the answers they need with an AI-fueled search experience that delivers personalized information and continuously optimizes search results. It leverages the combined power of NLU and machine learning to identify the user's intent and provide highly relevant results that users can act on right in their search window.



Semantics not just keywords

Legacy keyword searches simply look for words or phrases. AI Search is different. It understands the user's intent by looking for contextual clues in the user's search query. And it also considers factors such as the user's location, department, and language, delivering highly personalized results that empower users with the precise information they need. This eliminates user frustration and allows your business partners to deflect more queries that would otherwise reach their fulfillment team.

Self-learning

AI Search keeps on getting better and better the more you search. It uses machine learning to automatically tune search relevancy, predicting the best answers based on users' search behavior.

Actionable results

AI search doesn't just return information. It also connects users with other useful resources based on their query. For example, if a user searches for another employee, AI Search shows them the employee's business card and provides links to the employee's profile and org chart. Once again, this streamlines the search experience and increases deflection rates.

The cumulative knowledge of your business at your user's fingertips

Because AI Search runs natively on the Now Platform, it has full access to all your organizational data, roles, knowledge articles, service catalog, and more, so it instantly delivers accurate, relevant data (guarded by role-based access) that reflects your specific business. And if you create a new custom app with App Engine, you can easily add its data to AI Search as well.

Available anytime and anywhere

You can easily embed AI Search into ServiceNow Service Portal and Virtual Agent, delivering the answers your users need on any device.

Let's recap

Digital transformation is accelerating, but IT organizations are struggling to keep up. Traditional development is still a slow and cumbersome process, and skilled developers are in short supply. As a result, we're seeing huge IT backlogs and a resurgence of shadow IT.

With App Engine, you change the game. Its low-code approach lets anyone build powerful apps fast, while pro coders still get the advanced development tools when they need them. With App Engine, you can:

- Accelerate and scale low-code development with App Engine Studio
- Empower pro coders with Studio IDE
- Reimagine every process as a digital workflow with Flow Designer
- Build stunning web experiences with UI Builder
- Engage users anywhere and on any device with Mobile Studio
- Natively integrate ServiceNow with anything with IntegrationHub
- Intelligently automate workflows with Predictive Intelligence
- Create intelligent chatbots with Virtual Agent
- Analyze and improve workflow performance with Performance Analytics
- Deliver consumer-grade search experiences with AI Search

And with App Engine, all of these capabilities work seamlessly together, creating a unified development experience that delivers better business outcomes faster.

That's the power of the Now Platform.

For More Information

<https://developer.servicenow.com/dev.do#!/learn>.