Managing the ServiceNow Platform

A comprehensive guide to ServiceNow administration

Felix Acosta

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Dedicated to

My beloved wife:

Martha

&

*My Son **Benjamin***

About the Author

Felix Acosta has spent over ten years developing and implementing ServiceNow for many organizations and over 20 years working with different service management solutions. Throughout his experience, Felix has played many roles, including developer, architect, and project manager, and has coached and mentored many ServiceNow consultants, developers, and administrators.

Today, Felix shapes complex ServiceNow solutions, coaches consultants, and helps many organizations throughout their ServiceNow journeys.

Felix holds multiple ServiceNow certifications, including the Certified Master Architect badge. Other ServiceNow certifications include Certified Application Developer (CAD), Certified Systems Administrator, and Certified Implementation Specialist for ITSM, HR and CSM, Discovery, Service Mapping, and Event Management.

He is also certified as a Project Management Professional (PMP) and ITIL 4 Managing Professional.

Felix also holds a Bachelor's in Telecommunications and Electronics Engineering (ITESM – Mexico), a Master's in Telecommunications Management (ITESM – Mexico), and a Master's in Business Administration (University of Toronto).

Acknowledgement

Preface

If you are reading this, odds are that you have heard about ServiceNow and you are eager to learn more. You are in the right place.

This book is designed to be an easy and friendly introductory guide, intending to start the reader's journey into ServiceNow smoothly.

Throughout this book, you will find key concepts used on the platform and many practical examples of configuration and administration to help the reader quickly and easily understand what it can do and how to do it best.

This book is designed for new administrators, developers, and managers; written with an easy approach that requires no previous software development experience or technical background. This book is for anyone.

After reading this book, you will have a solid understanding of the platform's fundamentals from a practical, hands-on perspective.

Chapter 1: Overview of ServiceNow – It provides a quick introduction to the ServiceNow platform, along with some additional context and history to help better understand the reason for the architectural and design patterns found in ServiceNow.

Chapter 2: The Platform Building Blocks – It presents an overview of the core building blocks of the ServiceNow platform that any administrator should be able to understand. The ServiceNow platform uses a consistent model and codebase, and most ServiceNow applications use these core building blocks.

Chapter 3: Managing Users, Foundational Data, and Platform Security – This chapter covers key concepts of managing users and access in the system, along with the different strategies that can be used to manage these.

Chapter 4: Configuring Forms and Lists – This chapter covers aspects of forms and lists in ServiceNow. Forms and lists can be easily configured to help users manipulate and interact with data in ServiceNow. It is essential for the reader to understand these concepts.

Chapter 5: Configuring Workflows Using Flow Designer – It provides a quick introduction and practical examples of the usage of Flow Designer. Flow Designer is a powerful workflow automation editor native to ServiceNow, which is used broadly for task workflows.

Chapter 6: Configuring Business Rules – It allows the reader to learn basic business rules concepts through practical examples. Business rules in ServiceNow allow for easy modification of values on a record based on the given conditions.

Chapter 7: Configuring for Mobile – It provides the reader with some practical examples and exercises to get familiar with the mobile capabilities of the ServiceNow platform.

Chapter 8: Configuring and Creating Portals – It provides some practical examples and exercises for configuring portals. ServiceNow's Service Portal is a full-fledged Content Management System (CMS) that provides powerful and robust tools for building self-contained websites.

Chapter 9: Configuring and Managing Notifications – It explains key notification configuration concepts the reader can leverage to help engage users with different notifications and messages with examples.

Chapter 10: Importing and Exporting Data – It provides the reader with the use cases, examples, and concepts for importing and exporting data in ServiceNow. These features are essential for managing large volumes of data and ensuring data consistency and accuracy across the platform.

Chapter 11: Integration Concepts with ServiceNow – It allows the reader to understand better the different integration use cases and how to configure the platform for different system integration scenarios through practical examples and descriptions.

Chapter 12: Scripting Concepts and Examples – It provides the reader with some examples and exercises for scripting in ServiceNow, using illustrative cases that showcase some of the tools available to the reader in the platform.

Chapter 13: Managing Releases and Troubleshooting the Platform – In this chapter, the reader will learn concepts to manage the daily needs of the ServiceNow platform better. These include managing configuration versions, update sets, application scopes, source control integration, and basic troubleshooting and debugging advice.

Chapter 14: Additional Training and Resources – In this chapter, the reader will understand some better key additional resources to continue the learning journey.

Code Bundle and Coloured Images

Please follow the link to download the
Code Bundle and the *Coloured Images* of the book:

https://rebrand.ly/cl9qqa2

The code bundle for the book is also hosted on GitHub at **https://github.com/bpbpublications/ Managing-the-ServiceNow-Platform**. In case there's an update to the code, it will be updated on the existing GitHub repository.

We have code bundles from our rich catalogue of books and videos available at **https://github. com/bpbpublications**. Check them out!

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Table of Contents

CHAPTER 1
Overview of ServiceNow

Introduction

In this chapter, we will briefly introduce the platform, along with some context and history, to help you better understand the drivers and reasons for some architectural decisions and patterns observed across the platform.

If you are reading this, odds are that you are at least somewhat aware of ServiceNow, from the possibilities to the community and all the cool features and capabilities built around it. From its appealing user interface to its powerful integration capabilities, the platform is a playground for tinkerers and developers of all skill levels and is loved by end users.

Where we stand today, the ServiceNow platform has been proven to be a very effective tool to automate all sorts of processes across multiple enterprise disciplines: information technology, human resources, customer service, field services, risk management, and anything in between. It can be automated in ServiceNow if you can draw a diagram flow for it or track it in a spreadsheet. There is no shortage of use cases for the platform. Currently, solutions for the most common enterprise workflow problems have already been addressed by existing ServiceNow products. If there is not a solution already, you can quickly build it.

There is no shortage of resources around ServiceNow as long as you know where to find them. You can easily get a personal development instance to build any of your ideas with no cost, you can access many communities of interest and blogs around ServiceNow as long as you

know how to search the web, you have access to all the product and release documentation, and you also have access to all sorts of training and certifications, for free in many cases.

Figure 1.1: Learning ServiceNow is like drinking from a firehose

The wealth of ServiceNow online resources can be overwhelming. The problem we are presented with in ServiceNow is one of abundance: Where should we start?

That is the problem this book aims to solve. It will guide you through all the essential concepts that any platform manager or administrator needs to understand, explain why they are essential, and provide a launch platform on your journey to all things ServiceNow: training, advanced configuration, integration, specialized capabilities, the community, and other things. We hope this book will be a quick, easy, and digestible guide to ServiceNow for you.

Let us get started.

Structure

We will discuss the following topics in this chapter:

- Introduction to ServiceNow
  - o A brief history of ServiceNow
  - o The current state of ServiceNow
  - o Some notes on ITIL
- Architecture fundamentals of ServiceNow
  - o The technology infrastructure
  - o How the platform is built

Objectives

You will better understand the platform's key concepts and engines and go through a brief history of service management and ServiceNow.

Introduction to ServiceNow

At its core, ServiceNow is a workflow automation platform that automates enterprise processes for all functions and departments, from information technology services to human resources, customer service, and risk and audit.

While often characterized as a ticketing system due to its roots managing information technology tasks for service desks and second-level support groups in its early days, it is important to note that over the years, ServiceNow has become the service automation platform of choice and system of engagement for the enterprise, responsible for end-to-end automation of all sorts of processes, from automating approvals and taking requests to automating the interaction with third-party systems and tools and serving as the front end to many supporting back-end processes and tools.

A brief history of ServiceNow

Context is important to be able to understand anything in this world. For this reason, we should probably talk about how ServiceNow, **The Information Technology Infrastructure Library (ITIL)**, and other information technology service management systems got us to where we are today. The figure below provides a timeline of significant events in the history of ServiceNow and the evolution of service management as a practice. Refer to the following figure:
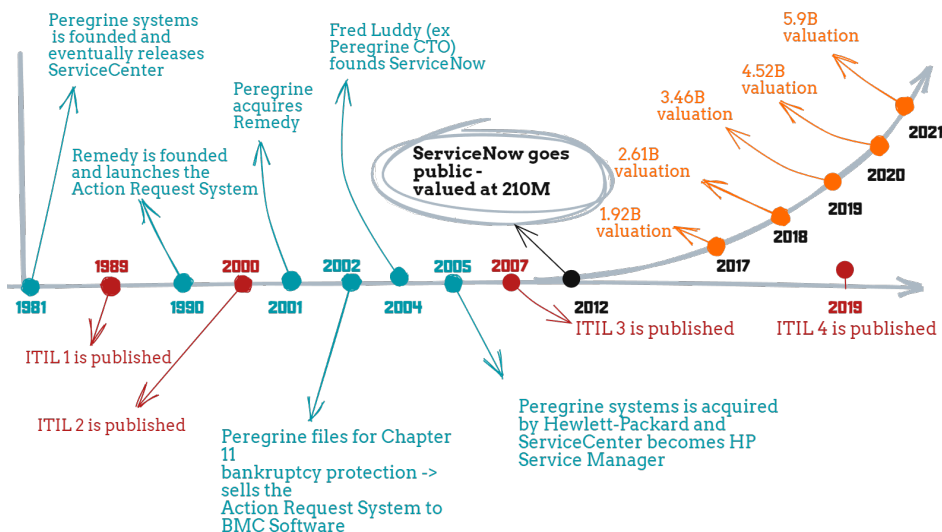

Figure 1.2: History of Service Management and ServiceNow

As shown in *Figure 1.2*, some important milestones around ServiceNow, ticketing systems, and ITIL are outlined below:

- In 1981, Peregrine Systems was founded. Peregrine systems created the Peregrine Network Management System, eventually added IT service management capabilities like request management, change management, and call management, and then evolved to Peregrine ServiceCenter over time.

- In 1989 ITIL v1 was released, setting up the foundation for IT Service Management processes. As the use of IT assets grew across organizations, the need for a stronger process foundation arose.

- In 1990, Remedy was founded, launching the Action Request System. At that time, the Action Request System provided the ability to customize process flows and forms.

- 2000 ITIL v2 was released, introducing the next iteration of ITSM processes to be used as a reference. ITIL v2 introduced concepts like the service desk, incident and change management processes, and capabilities like the CMDB as conceptual frameworks.

- 2001 Peregrine Systems acquired Remedy and the **Action Request System** (**ARS**). Service management platforms and systems were still perceived as ticketing systems to help handle service desk calls.

- In 2002, Peregrine Systems filed for bankruptcy and sold its Action Request System to BMC, becoming the foundation for the BMC Service Management suite of products.

- In 2003, Fred Luddy (who served as Peregrine's CTO up to 2002) founded Glidesoft, which became ServiceNow in 2004. The original goal of ServiceNow was to focus on building a powerful workflow-based platform. Still, it took on IT Service Management first, given the demand and experience of the team.

- In 2007, ITIL v3 was released. By this time, ITIL v3 processes became more mainstream as IT organizations grew, and the need for better controls and efficiency grew. At this time, SaaS and Cloud first concepts started gaining ground (Amazon Web Services was launched in 2006), but most organizations were weary of using cloud-based systems.

- In 2012, ServiceNow became a public company. ServiceNow's simple cloud-based subscription model and ease of implementation became its differentiators. Keep in mind that configuring and implementing an on-premise system at this time typically took at least weeks in terms of the infrastructure alone, without even considering organization-specific configuration.

- By 2017, ServiceNow became the clear market leader in IT Service Management solutions, showing as a leader in most analyst books and dominating IT Service Management. At this point, ITIL became more mainstream. Other departments like IT, Audit, and Risk saw the potential benefit of using ServiceNow and a service management framework to set discipline and controls to their work.

- In 2019, COVID-19 came along, and mass adoption of remote work began. This put a lot of pressure on all organizations and departments to better manage their processes

in a remote setting, which led to the mainstream adoption and understanding of ServiceNow's capabilities as a platform.

• By 2022, ServiceNow was a recognized leader not only in IT Service Management solutions but also in multiple other domains where management of service-based transactions is needed.

The current state of ServiceNow

ServiceNow's core technology strength is its unified platform. While other vendors have lost focus by acquiring disparate systems and then stitched together applications built with disparate technologies, ServiceNow has flawlessly stuck to its single-platform philosophy. While ServiceNow has acquired applications to be integrated into the ServiceNow ecosystem, all applications are re-platformed to the single-core platform foundations. Over time, this has gained momentum: applications are built faster on the platform, the core engines are improved, and the learning curve for developers is shortened.

On the technical front, ServiceNow does integrations well. It is easy to develop, provides various methods, and a flexible network access and security framework. This means ServiceNow can integrate with almost any modern system, and third-party systems have an easy time building plugins and APIs to integrate with ServiceNow. For this reason, a wealth of commercially available plugins and APIs are available via ServiceNow or by third parties today and integration frameworks can easily and quickly be put together.

On the social front, ServiceNow has been working hard to develop a vibrant community of developers and users, hosting massive events like the yearly knowledge conference, managing an engaged virtual community, and providing free access to development resources, such as the **Personal Development Instance** and training material.

Figure 1.3 below shows one of ServiceNow's yearly *Knowledge* events. Prior to the pandemic, these events had over 10,000 people attending every year, where developers, users, partners, and ServiceNow met to discuss the latest trends, challenges, and features. Over the years, these have only grown in presence and are now held in multiple regions due to their size and impact.

Refer to *Figure 1.3*: