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# SERVICE AUTOMATION FRAMEWORK

FOR THE DESIGN AND DELIVERY  
OF AUTOMATED SERVICES

Jan-Willem Middelburg

## Service Automation Framework

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# Service Automation Framework

**For the design and delivery  
of automated services**

**Jan-Willem Middelburg**



# Colophon

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## Foreword - A. Leinwand

There are two types of service offerings we probably all encounter daily. Consumer on-demand services offered across the planet help us summon entertainment, food, transportation and much more from an application on a smartphone. The most successful of these applications follow a structured workflow – we make a request, the application reports progress along the way and then our request is completed. In 2016, these on-demand services have seen explosive growth and often deliver an exceptional user experience and high consumer satisfaction.

The second type of service offerings that we use are the business services needed to get our work done on a daily basis. Most companies implement business services that use unstructured and antiquated methods to get work done. Many of these applications have been around for over two decades and have not changed significantly. Almost out of habit, we use unstructured workflows at work all the time – such as sending a work request in an email to a colleague and waiting for a response that may come in minutes, days, weeks or not at all. In fact, eighty percent of all companies still use email, spreadsheets, presentations and in-person meetings to implement processes and deliver services to their employees and customers. The result is that in 2016 our work is unstructured, unpredictable, consumes variable amounts of time, not tracked and produces mixed levels of results to our company and customers.

Now, imagine that we brought the 2016 experience to our work and the delivery of business services was similar to consumer on-demand services. Requests for information needed to do your job would be structured, tracked and completed. Service requests from peers and customers would follow a similar process and not get lost in an email inbox, buried in a presentation or forgotten after an in-person meeting. The use of service automation and structured workflows would make it easier for you to do your job and enhance experiences for your customers.

While it is not possible to do every work task in a structured way, the efficiency of your company and your work is directly proportional to the amount of work that can follow a service automation framework. The real challenge for many organizations

is finding the work that can follow structured workflows and then automating this work with the proper technology (such as Enterprise Service Management from ServiceNow).

This book can help you and your organization define and implement an automated service automation framework. It provides a roadmap that leads you to building structured workflows and automation that leads to a more efficient business and, almost certainly, happier customers.

Good luck and enjoy the road to your service automation framework.

Allan Leinwand  
Chief Technology Officer  
ServiceNow, Inc.

## Foreword - R. Pharro

A lot has been written about the need for organizations to become digital and to transform the way they work. There is a wealth of information on the benefits of doing business in the digital age, how start-ups can access a global market within days of launching their innovative products and how existing companies can unlock opportunities through new online services.

Some businesses, by their very nature, are using technology to provide an enhanced customer experience and these businesses have transformed the way they work with their customers and have raised customer expectations that in return affect all businesses. However, little has been written about how an existing business can achieve this transformational change. What are the management and operational issues the business needs to address and how does it go about aligning, or more often redesigning, its business practices to deliver an automated service to its customers?

This book addresses service automation not as a technology issue but as a management and business process issue. Drawing on a wealth of personal experience and that of his colleagues, Jan-Willem has developed a comprehensive framework which can be adopted by any size of business and will provide a blue print for any organization wanting to know how to respond to both societal demand and market pressures to provide their services with as little human intervention as possible.

I would recommend his book to anyone in business grappling with this problem. As Darwin said "It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change." Service Automated Framework shows you how you can adapt your business to meet the challenge of increasing automation.

Good luck with your journey.

Richard Pharro  
CEO APM Group



## Foreword - D. Ratcliffe

My career in IT began in 1975. It was an entry level position in the IT Department of a large heavy engineering company. On my first day at work I recall being quite intimidated by the flashing lights and low hum of the expensive equipment in the Computer Operations Room – my new “work home” for the next 6 years.

As the most junior person on the team my duties – as explained by my supervisor that day - would be limited to no more than answering the phone. Little did I know at the time, but I was about to become the Help Desk. My nervousness sky-rocketed at the thought of explaining to people why computer systems might not be working. However, when I asked for guidance my supervisor declared. . .

*“Don't worry, it's easy! People only call for one of three reasons:*

- 1. They may say “I haven't received my printed report.” Just ask for the report name, write it down and tell them we'll re-print the report tonight and they can collect it tomorrow.*
- 2. Or, they may say “I've forgotten my password.” Just give them Neil's phone number – Neil resets all passwords.*
- 3. The only other reason they could be calling is because their terminal isn't working”.*

Oh no! I'm going to need some deep technical knowledge & experience to be able to handle this type of call. Maybe I should re-think this whole “career in computers” thing. Then what I heard was. . .

*“This is the easy one. Just tell them “We know it's not working, we're working on it.” Then just hang-up.”*

Really! Service circa 1975. We've come a long way since then. Not just through advances in infrastructure performance and more powerful programming techniques, but also in how we organize ourselves. We now have best practices in all areas of IT – drawing upon our own experiences and the experiences of our peers right across the industry. The goal of these best practices is to leverage proven

X

methods for handling repetitive tasks in efficient and effective ways so we can achieve better, faster and cheaper results.

And today, as the "Service Automation Framework" explains, we're able to further empower ourselves and our customers through new processes, new definitions and new ways of thinking. Adding value through enhanced quality of service and delivering better, cheaper and faster results for a new generation.

Good luck on your Service Automation journey!

David Ratcliffe  
President, Pink Elephant

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# The Road to Ithaka

As you set out for Ithaka  
hope your road is a long one,  
full of adventure, full of discovery.  
Laistrygonians, Cyclops,  
angry Poseidon-don't be afraid of them:  
you'll never find things like that on your way  
as long as you keep your thoughts raised high,  
as long as a rare excitement  
stirs your spirit and your body.  
Laistrygonians, Cyclops,  
wild Poseidon-you won't encounter them  
unless you bring them along inside your soul,  
unless your soul sets them up in front of you.

Keep Ithaka always in your mind.  
Arriving there is what you're destined for.  
But don't hurry the journey at all.  
Better if it lasts for years,  
so you're old by the time you reach the island,  
wealthy with all you've gained on the way,  
not expecting Ithaka to make you rich.  
Ithaka gave you the marvelous journey.  
Without her you wouldn't have set out.  
She has nothing left to give you now.

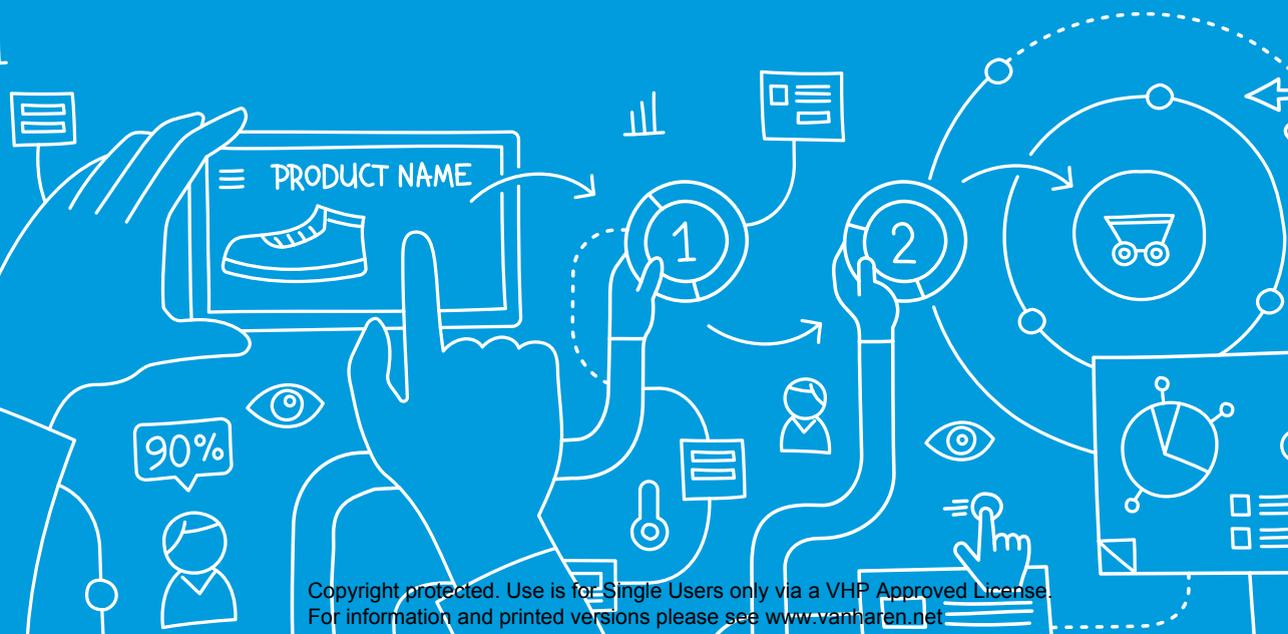
And if you find her poor, Ithaka won't have fooled you.  
Wise as you will have become, so full of experience,  
you'll have understood by then what these Ithakas mean.

© K.P. Kavafis, *Poems*, 2002

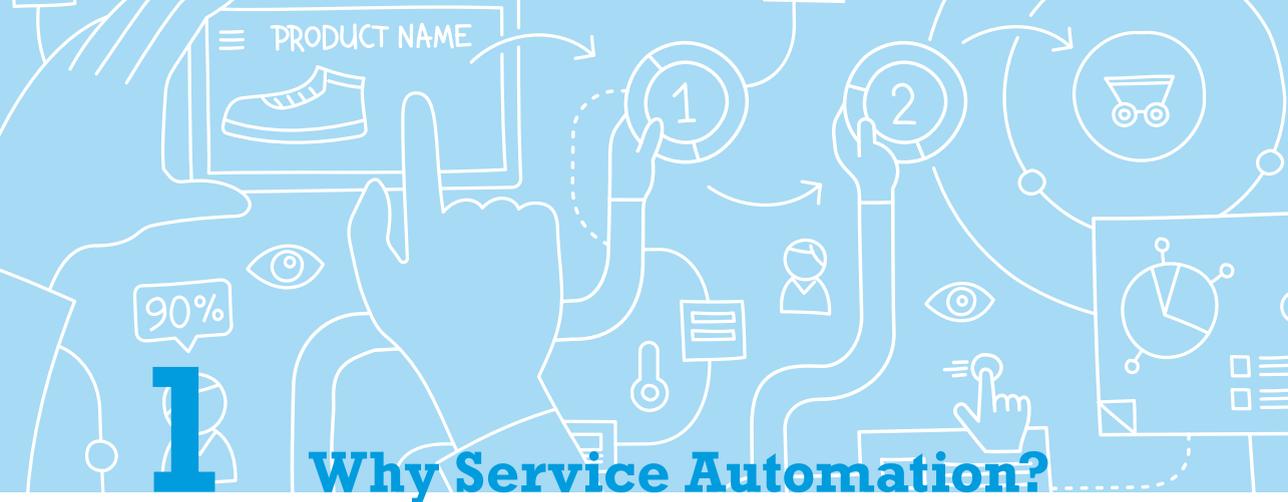


# Section 1

## Welcome to the world of Service Automation







# Why Service Automation?

## ■ 1.1 INTRODUCTION

Have you ever wondered why some organizations are successful and others – despite good products and services – never achieve the breakthrough that they so aspire to? What is it that makes 'exponential' organizations such as Uber, Netflix and Google attract such a devoted group of followers or, in modern terminology, why do so many people 'like' these brands so much? How did they come to be at the center of attention, attracting loyal customers from the South Americas to the north of Asia?

It is not a secret that these 'exponential' organizations all thrive through Internet technology and their ability to reach millions of potential customers with just a few clicks. The Internet has an impact on society that is beyond imagination, but I'm sure you are already aware of that. New leaders in the market, however, have added an extra dimension to Internet technology, which makes them stand out from any other competitor: customer service. These organizations apply the concept of Service Automation knowing that customer loyalty is the foundation of any organization and that, especially in the fast and open Internet market, it is much more difficult to retain a loyal customer than to acquire a new one.

Ever since the early start of the century, we have become accustomed to searching, evaluating and purchasing products online. We (the 'self-service generation') have become used to speedy delivery, easy product returns and to share our opinion about the product on digital platforms for the world to see. Think about when you made your last online transaction. Was it more or less than a couple of days ago?

What started with products has gradually transcended to the world of services. Through the Internet, you can now search, evaluate and purchase services such as hotel stays, energy plans, mobile services and even health insurance. But in the domain of services, it frequently becomes trickier. Ever tried to change your cellphone subscription service or change the date of your flight through an online

platform? Chances are that it was not as easy as making the initial booking. Although there are some noticeable exceptions, the problem is that most services have not been fully automated... yet.

Additionally, the upcoming 'self-service' generation is used to getting the same levels of service in a professional environment as in their personal lives. How is it possible that you can change your Hotmail or Gmail password at home within twenty seconds, but that you need to call a helpdesk to do so in your work environment? Why can I download an app on my personal tablet in a matter of minutes and yet it takes two weeks for my company's IT department to update my browser to the latest version? And why, and this is possibly the most important question, does nobody inform me of the status of my request in my company and do I have to chase it myself all the time? If my Amazon package is delayed, I receive a notification with the new estimated time of delivery. Why is it that I never receive similar updates or communication in my work! Is there really still a difference between consumer services and 'professional' services?

This book will give you deep insight into the theory and methods of Service Automation, the concept by which you can automate services in any organization. If you apply Service Automation successfully in your company, you will see both employee and customer satisfaction levels rise along with a significant increase in the number of people who 'like' your organization. This book is intended for anyone who has ever believed that the level of service in his or her organization could be increased and is looking for step-by-step guidance to achieve this goal. Whether you are an entrepreneur, executive, consultant or work in the field of academia, now is the time to systematically understand and address the concept of Service Automation.

This book is titled the *Service Automation Framework*<sup>®</sup> (SAF) because it provides the design elements and processes to systematically optimize user experience by delivering automated services. The SAF starts by studying the user experience of user groups to understand the requirements for different user actions and subsequently designs a service solution that satisfies these requirements through user interfaces. The framework provides a step-by-step approach, including a number of processes, that every organization can use to 'digitize' their service offering. As with any model, it is a simplified version of actual reality, but acts as a framework that structures the mind and provides uniform terminology when discussing the contents with co-workers, customers and colleagues. By combining service design and processes in a uniform approach, we believe the Service Automation Framework provides a simple but powerful tool for any service organization or service provider. We encourage you to adapt and apply the framework in any way that you see fit in order to meet your (organization's) requirements.

As you have probably noticed, this book has a different format than a typical management book. That is because we want to apply the concepts of Service Automation to the full extent in this publication, combining the theory from this book with the additional online resources. Following our philosophy of self-service, this approach means that you (as a reader) are given the option to choose what information is relevant for your benefit. As a good starting point, however, we encourage you to actively apply the Service Automation Framework techniques (such as the Service Automation Blueprint) in practice. After all, it is up to you to transform the knowledge presented in this book into actual results.

An online self-service portal ([www.serviceautomation.org](http://www.serviceautomation.org)) therefore complements this book. This consists of all the visuals and workshop models that you need to get started immediately. Needless to say, it automatically deploys, delivers automated services and surprises you periodically (as you will read in subsequent chapters). We tried to put together a practical guide that will save you hours of work and expensive consultants. Remember that ultimately, this book can also be considered a 'knowledge service' and it intends to exceed your expectations continuously. Similar to other services you use daily, the Service Automation Framework is all about creating value for users. It is all about creating value for you.

Completing the book frequently felt like the Road to Ithaka - the poem on the opening page - a journey full of new discoveries and an exceptional learning experience. We hope you enjoy using the Service Automation Framework as much as we enjoyed creating it.

## ■ 1.2 TARGET AUDIENCE

This book is the result of over 18 months of research, dozens of conversations with industry experts and a rigorous review process by friends, colleagues and our publisher. Since no previous publications exist that are dedicated to the topic of Service Automation, we consider this book a first introduction to the Service Automation Framework, with two main objectives:

- 1) To introduce the Service Automation Framework as a practical step-by-step approach through which organizations can start delivering automated services;
- 2) To provide some fundamental terminology and concepts that are used in the Service Automation Framework in order to pass the Service Automation Foundation exam (SAF Foundation).

Similar to other best practices and standards in the world, we have composed an examination (Service Automation Foundation) that practitioners can take in order to expand their knowledge and prove their individual competency. The next section briefly outlines the details of the examination.

As Service Automation is a relatively new domain of expertise, we have had extensive discussions about the intended target audience of the Service Automation Framework. Since the decision to start offering automated services is primarily concerned with the execution of a digital strategy, we have therefore aimed this introduction of the Service Automation Framework to business and technology leaders. The target audience of the Service Automation Framework therefore includes:

- Service strategists;
- Process consultants;
- Business consultants;
- Strategy consultants;
- Service delivery managers;
- Service designers;
- Enterprise architects;
- Operations managers;
- Service managers;
- Developers;
- Business analysts.

As stated in the introduction, the aim of the Service Automation Framework is to 'digitize' the service offering of service providers to scalable and technology-oriented solutions. We therefore believe that this publication can equally provide guidance to existing service conglomerates, looking to deliver their services in new ways, as well as to start-up companies who are searching for the next disruptive innovation.

## ■ 1.3 SERVICE AUTOMATION QUALIFICATIONS

In order to ensure consistency across the world in applying and using the concepts of Service Automation, we have devised a certification scheme that is equally applicable across the world. The Service Automation Framework exam provides proof of a uniform understanding of the fundamental terms that are used in Service Automation. This book provides all the information necessary to pass the Service Automation Framework exam(s) as distributed by APMG-International ([www.apmg-international.com](http://www.apmg-international.com)). As you might expect from an exam program about Service Automation, the exam is a digital service that is provided through an online self-service portal. Since the administering of examinations requires specialized security and authentication methods, this service is provided by a third party (APMG International), which can be accessed through the Service Automation Framework website ([www.serviceautomation.org](http://www.serviceautomation.org)).

More information about the examination is included in section 4.