



# DIGITAL AUTOMATION SUITE DEPLOYMENT SCENARIOS

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## INTRODUCTION

This technical document presents the different deployment scenarios of the Trisotech Digital Automation Suite Deployment for production environments.

This document presents the three major scenarios but combinations of each scenario are possible. It is assumed in this document that the scenarios are deployed on the Trisotech Cloud infrastructure and maintained by Trisotech. All of these scenarios can also be achieved on premises.

When assessing which scenario is the most appropriate for an organization, the following constraints should be considered:

- How many automation transactions are planned per day? Hundreds, thousands, millions?
- Is geographical distribution of the service required for automation?
- What kind of flexibility is required in the deployment and resource allocation for each service?
- Are infrastructure resources available in your organization to manage the production environment and deployment of the services?

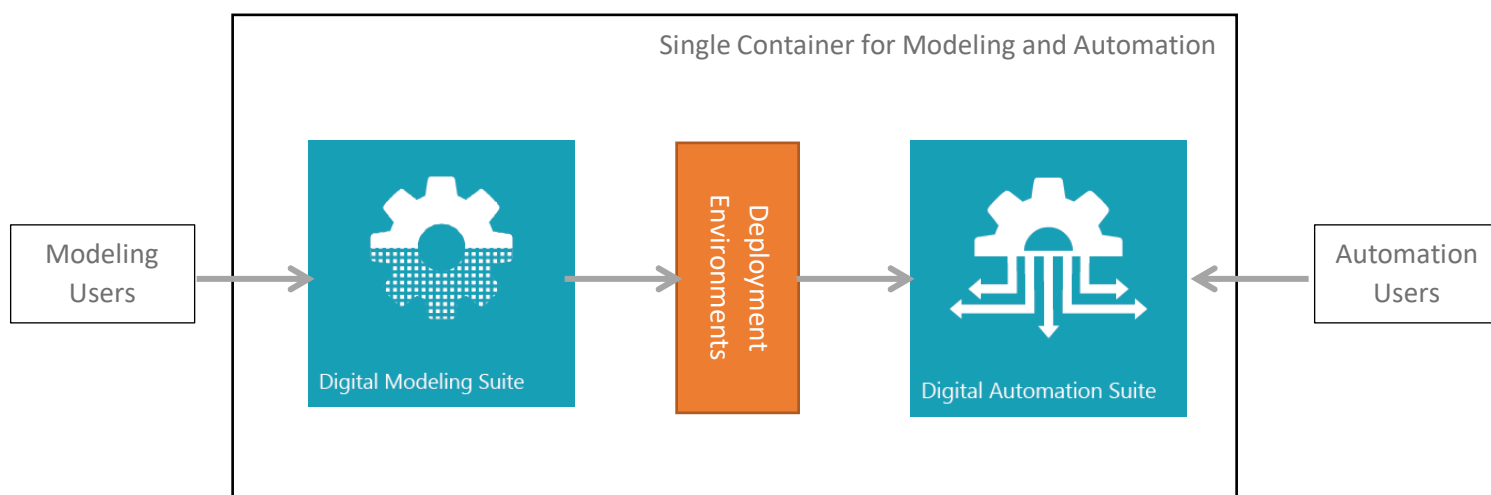
## SCENARIO 1: INTEGRATED MODELING AND AUTOMATION

In this scenario, a single deployment of the Digital Enterprise Suite exists containing both the modeling and automation applications.

Required product configuration of the Trisotech Digital Enterprise Suite:

- Digital Modeling Suite
- Digital Automation Suite

This scenario has automation redundancy and volume limitation as it does not run the automation in a distributed manner. This is, however, the simplest deployment and most cost/resources effective.



In this scenario, deployment environments are located inside the container and act as the bridge between modeling and automation.

Deployment environments can be separated for development/staging/test and production to implement a proper governance of the services.

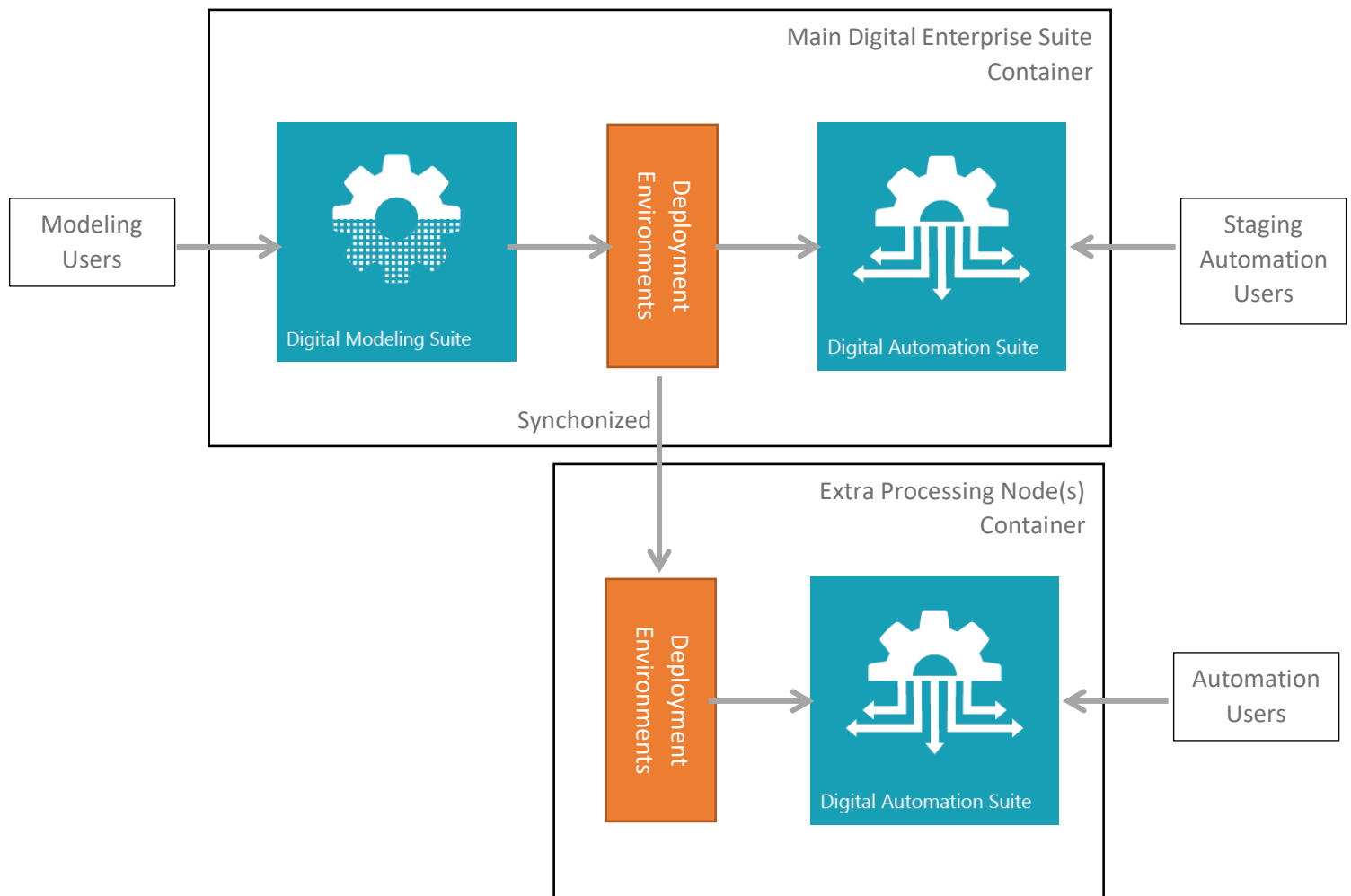
## SCENARIO 2: DISTRIBUTED AUTOMATION USING PROCESSING NODES

This scenario expands on the first scenario in separating staging/testing automation from production automation using extra processing nodes to serve deployment environments.

Required product configuration of the Trisotech Digital Enterprise Suite:

- Digital Modeling Suite
- Digital Automation Suite
- 1 or more Extra Processing Node(s)

This scenario offers the additional benefits of separating the staging/testing resources from the production resources by directing the production traffic to the Extra Processing Node(s) to provide better resource control and application scalability.



The Extra Processing nodes are synchronized with the Main Digital Enterprise Suite Container automatically. Each extra processing node can be configured to synchronize one or more of the deployment environments to provide even further flexibility.

When a deployment environment is synchronized with more than one extra processing node, load balancing/smart routing may be required for the automation users.

Extra processing nodes can also be deployed in different regions (geography) to provide redundancy and availability around the globe.

For development environments containing only stateless services (Decision Services or Straight-Thru Workflow Services), processing nodes become completely disposable and can scale without constraints.

In this scenario, Trisotech manages and hosts the extra processing node(s) in the region of the client choosing.

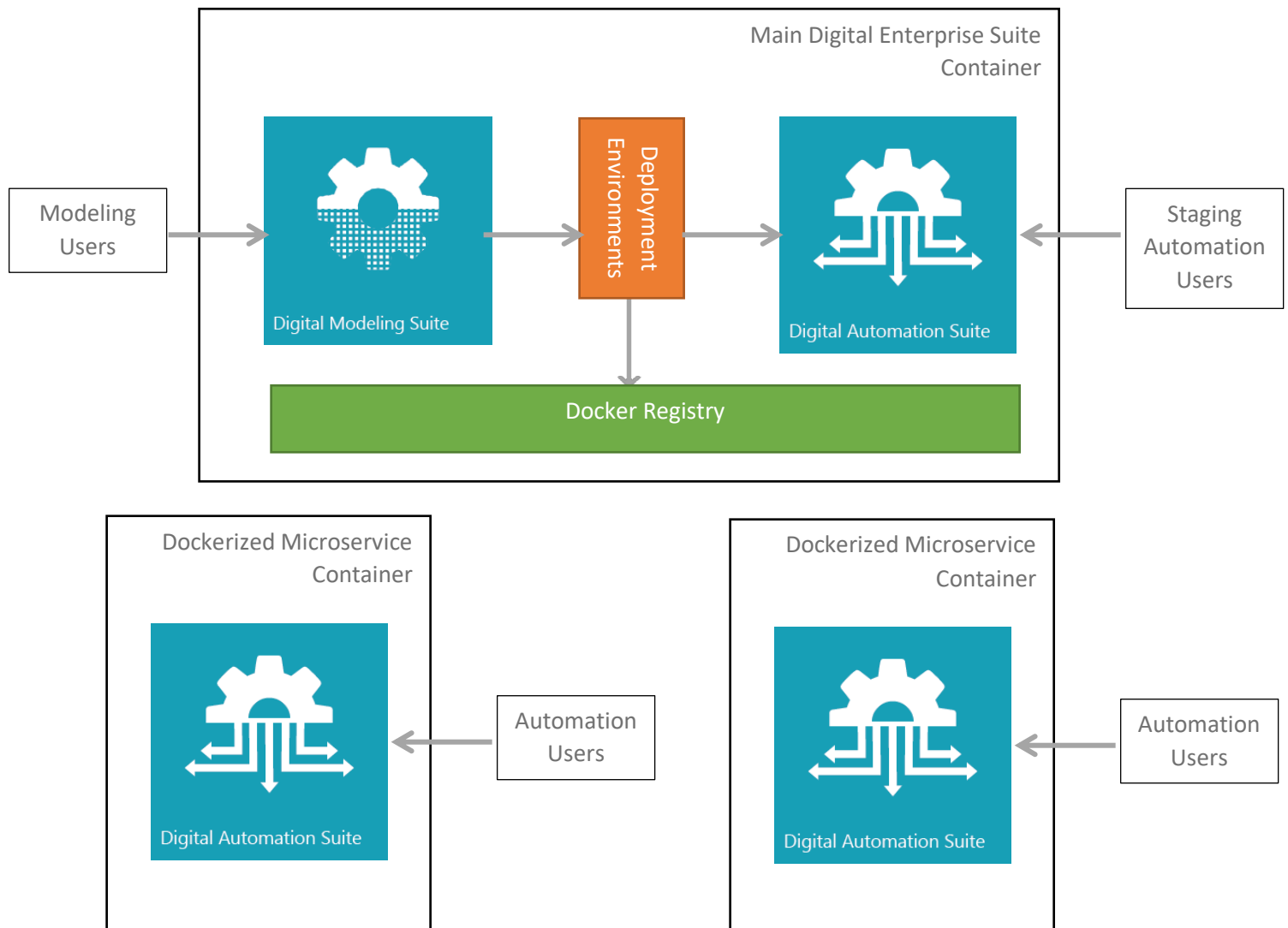
## SCENARIO 3: DIGITAL DISTRIBUTED CONTAINERS

This scenario is a deployment variant on the previous scenario that offers more flexibility and granularity in the service deployments.

Required product configuration of the Trisotech Digital Enterprise Suite:

- Digital Modeling Suite
- Digital Automation Suite
- Digital Distributed Containers

This scenario introduces a Docker Registry. For a service published to a Deployment Environment, a docker image of that service is built and pushed to the registry. Each business service becomes a microservice that can be pulled and deployed in any number of containers over any number of regions.



This approach is more flexible in the amount of resource that can be allocated to each service but is more complex to maintain because a dev/op pipeline is required to manage the lifecycle of all the service containers for production.

Microservices generated by the Digital Enterprise Suite can be pulled using the standard docker mechanisms (such as docker pull image).

When a microservice is deployed on more than one container, load balancing/smart routing may be required for the automation users.

For stateless microservices (Decision Services or Straight-Thru Workflow Services), containers become completely disposable and can scale without constraints.

In this scenario, the client manage and host the dockerized micoservices on their own infrastructure. Trisotech recommends a Kubernetete infrastructure but supports most Docker based solutions.

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