# Incident response orchestration versus automation

So far, you've learned that orchestration helps streamline incident response efforts by coordinating specialized security tools, tasks, and processes. In this reading, you'll dive deeper into orchestration, learn its importance in incident response efforts, and explore how to use it effectively. You'll also learn the key distinctions between orchestration and automation, and how they complement each other.

## Orchestration's importance in incident response efforts

Security, Orchestration, Automation, and Response (SOAR) includes useful technologies that help coordinate, execute, and automate tasks. Orchestration is the automated configuration, coordination, and management of computer systems and services. As a cloud security professional, you can set up orchestration to execute a single service at a specific time and day. You can also use the more sophisticated approach of automating multiple services over longer periods of time.

You can also use orchestration to automate and coordinate security tasks across multiple security tools and platforms. Orchestration is critical to coordinating workflows and services that prepare, ingest, and transform data. An orchestration solution in security gathers data from many sources, and provides comprehensive insights into the threat landscape. It also enables the security team to automate complex processes, and helps strengthen an organization's security posture.

## Orchestration vs. automation

The terms automation and orchestration are often used interchangeably, but they have different meanings. Automation enables security teams to automate different tasks within a single system. When security teams want to automate multiple processes, or tools between other products, tools, or systems, they should use orchestration.

### Automation

To review, automation is the use of technology to reduce human and manual effort to perform common and repetitive tasks.

Automation has some popular use cases, including:

- Establishing an infrastructure as code (IaC) environment to help you make workflows

more efficient, and streamline resource management in the cloud
- Managing workloads in the cloud to help you allocate resources efficiently, and keep track of system processes
- Executing workflow version control to help you when monitoring system changes
- Allowing applications in a private cloud to interact with applications in a private cloud to help you connect the different elements in a hybrid cloud

## Orchestration

Orchestration also helps create automated environments and coordinate functions, teams, activities, and services needed for security.

Here are some use cases for cloud orchestration:

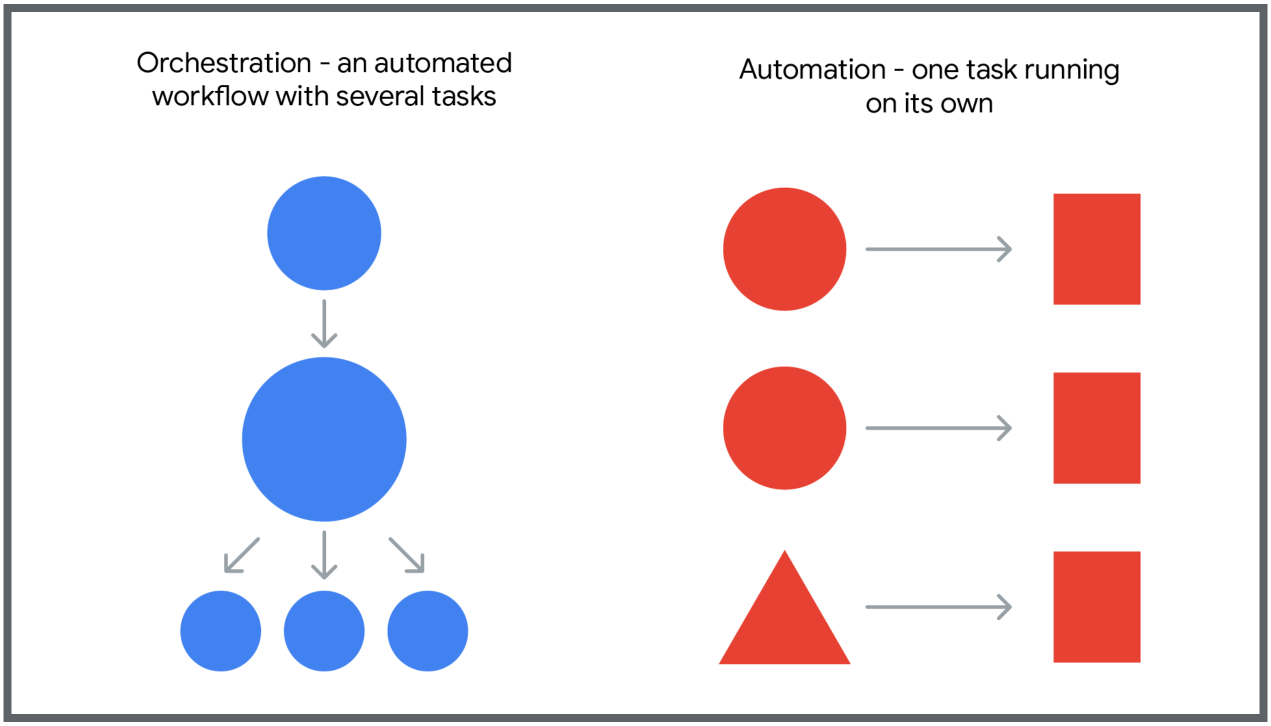
- Automating multiple tasks into a single workload, including coordination, arrangement and cloud service management
- Building workflows across multiple platforms, so you can have them all work as a unit
- Managing networks in public and private clouds, and connecting diverse systems that are separated geographically

## The main difference between orchestration and automation

The main difference between automation and orchestration is the number of systems they work with. Automation works with a single system, while orchestration can work across multiple systems.

## How do automation and orchestration work together?

Automation and orchestration depend on each other. In your career, you'll likely create automated tasks that are part of an orchestration process. The orchestration process can include both automated and manual tasks.


Orchestration - an automated workflow with several tasks
Automation - one task running on its own

## Key takeaways

Orchestration can be used for various purposes, from executing single services, to automating complex workflows across multiple platforms, or your entire cloud system. Orchestration plays a crucial role in coordinating the preparation, ingestion, and transformation of data within your workflows. The main difference between automation and orchestration lies in their scope; automation works on a single system, while orchestration seamlessly manages multiple platforms. While distinct, automation and orchestration are interdependent components of an efficient system.