



# One Platform Kit (onePK) for Developers

## What Is the Value of onePK?

Cisco onePK, short for One Platform Kit, is an easy-to-use toolkit for development, automation, rapid service creation, and more. onePK enables the extension and configuration of the capabilities available on Cisco® routers and switches. onePK allows for easier access to the data inside your network and control over the function of your network.

onePK allows your network's power to be unleashed in new ways for a faster, more flexible, and intelligent infrastructure.

## What Problems Does It Help Solve?

- Need for deeper access to information stored within network devices
- Need to exercise greater or more precise control over flows and routes
- Need to extract particular packets for modification and reinjection
- Need to improve quality of service based on custom parameters
- Need to add services to the network without making a huge infrastructure investment
- Need to allow programmers to augment network operation in response to application-specific business logic
- Need to bridge the operational gap between disparate systems
- Need to deploy a gateway or network service without adding hardware or constraining functionality based on physical connectivity

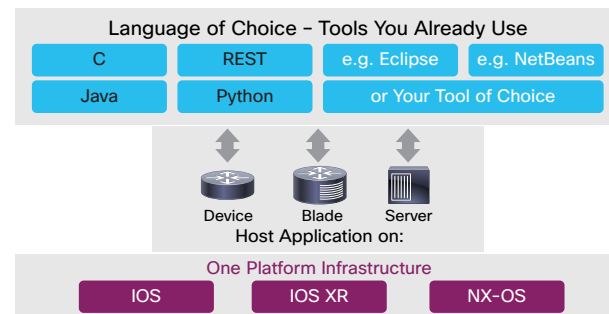
## Applications of onePK for Specific Customer Types

- Improve visibility and control over network operations (all market segments)
- Reduce hardware footprint for new services or gateway functions (enterprise and service provider)

- Automate new service provisioning for customers (cloud service provider)
- Deliver more consistent quality of service to multimedia service customers (service provider)
- Achieve higher levels of data security when transmitting over untrusted networks (government/defense)
- Improve the perceived speed of the application to users of hyperscale data center services (for example, social media websites)
- Orchestrate new services or additional resources more quickly and cost-effectively (data centers and service providers)
- Modify packets to enhance security, reliability, or performance for customers (data centers and service providers)

## One Platform Kit (onePK)

onePK is a flexible development environment that supports C or Java programs. Your source code can be written and compiled using any tools that you want. The onePK infrastructure is built right into the operating system of all Cisco platforms and communicates with the onePK presentation layer, supporting the developer's C or Java programs.



This architecture gives users maximum deployment flexibility. onePK along with Cisco's container support allows the user to host applications on the device

processor board, a services blade available with some Cisco platforms or a separate server, that communicates to the onePK infrastructure using a secure communications channel.

Because the API is consistent across all Cisco platforms, the developer can write an application once and have that application deployed on any switch or router.

## What Are the Benefits of onePK?

- Build, automate, improve: Create new or improve existing applications and services, increase productivity
- Speed and faster adaptability: Provide network flexibility for rapidly changing business needs (bandwidth, other), reduce operating costs
- Extend: Extend the functionality of your network
- Revenue and cost savings: Provide monetization of new applications or services, create services more quickly with code that you can write once and run anywhere, reduce staff turnover or increase employee satisfaction
- Simplicity, integration, and the power of choice:
  - Utilize with tools of choice such as NetBeans, Eclipse, and more
  - Choose your implementation and compiler
  - Run it on any server or right in the network device

## Why Cisco?

The onePK model is consistent across all of the wide variety of Cisco routers and switches. Write your application once and deploy it anywhere. Because it's Cisco, you can be sure that your onePK application will be supported on the widest variety of network devices in the industry. And, if you are a Cisco certified developer partner, onePK gives you the largest market opportunity.