



CloudEngine 12800E Series Switches

Product Description

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1 About This Document

Intended Audience

This document is intended for network engineers responsible for network design and deployment. You should understand your network well, including the network topology and service requirements.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 NOTE	<p>Calls attention to important information, best practices and tips.</p> <p>NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.</p>

2 Product Overview

CloudEngine 12800E (CE12800E for short) series switches are next-generation core switches designed for data center networks and high-end campus networks, providing high performance and high port density. Using Huawei's next-generation VRP8 operating system, CE12800E series switches provide stable, reliable, and secure high-performance Layer 2/Layer 3 switching capabilities to help build an elastic, virtualized, and high-quality network.

CE12800E series switches use an advanced hardware architecture design and provide 100GE/40GE/10GE line cards with various port densities. The switches support high-density access of high-speed servers and aggregation of TOR switches, providing high performance and large capacity for data center networks. The switches use an orthogonal architecture without a backplane and support smooth evolution to 400GE in the future. They can be installed in 800 mm and 1000 mm deep cabinets because the chassis dimensions are smaller. The switches can function as core and aggregation switches on various data center networks, as well as high-performance switches on high-end campus networks.

3 Product Appearance

NOTE

This section only describes switch appearances. For detailed hardware information, see the *Hardware Description*.

CE12804E

[Figure 1](#) and [Figure 2](#) show the appearance of a CE12804E chassis.

Figure 3-1 CE12804E chassis (front view)



Figure 3-2 CE12804E chassis (rear view)



CE12808E

[Figure 3](#) and [Figure 4](#) show the appearance of a CE12808E chassis

Figure 3-3 CE12808E chassis (front view)



Figure 3-4 CE12808E chassis (rear view)



CE12816E

Figure 5 and **Figure 6** show the appearance of a CE12816E chassis.

Figure 3-5 CE12816E chassis (front view)



Figure 3-6 CE12816E chassis (rear view)



4 Typical Applications

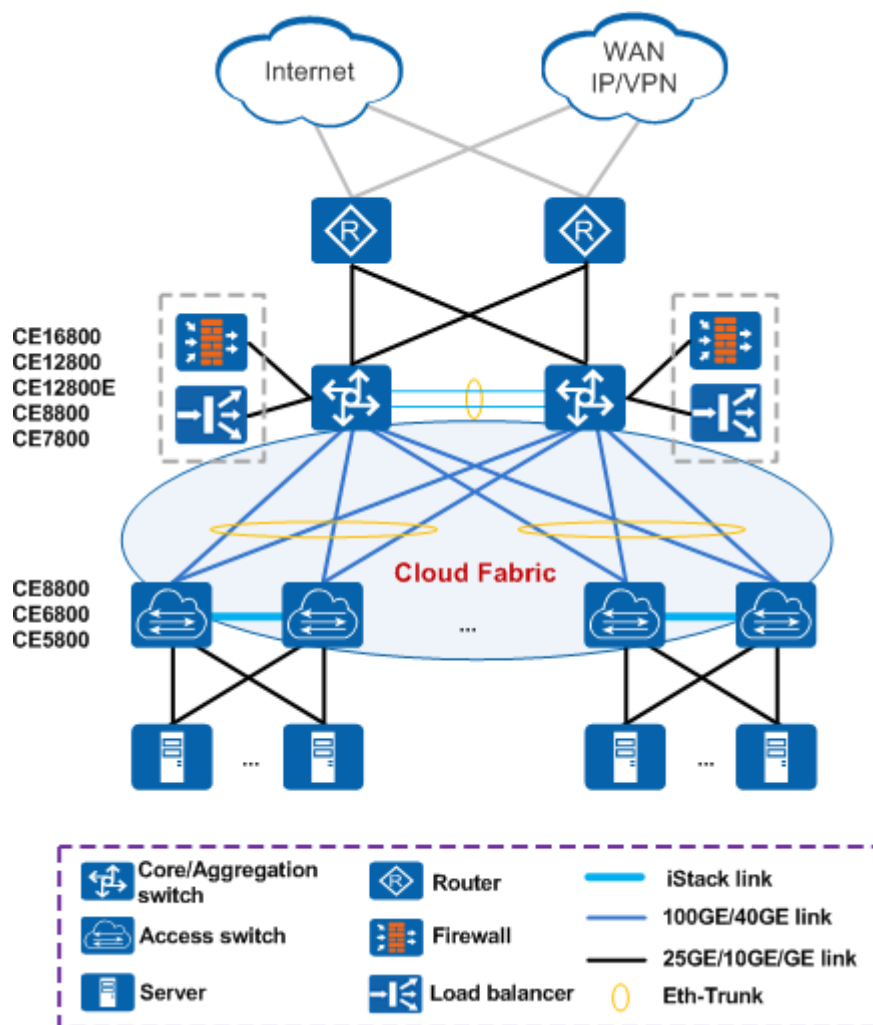
[4.1 Data Center Applications](#)

[4.2 Campus Network Applications](#)

4.1 Data Center Applications

On a typical data center network, CE16800/CE12800/CE12800E/CE8800/CE7800 switches work as core switches, whereas CE8800/CE6800/CE5800 switches work as access switches and connect to the core switches using 100GE/40GE/25GE/10GE ports. The switches use VXLAN and other fabric protocols to establish a non-blocking large Layer 2 network, which allows large-scale VM migrations and flexible service deployments.

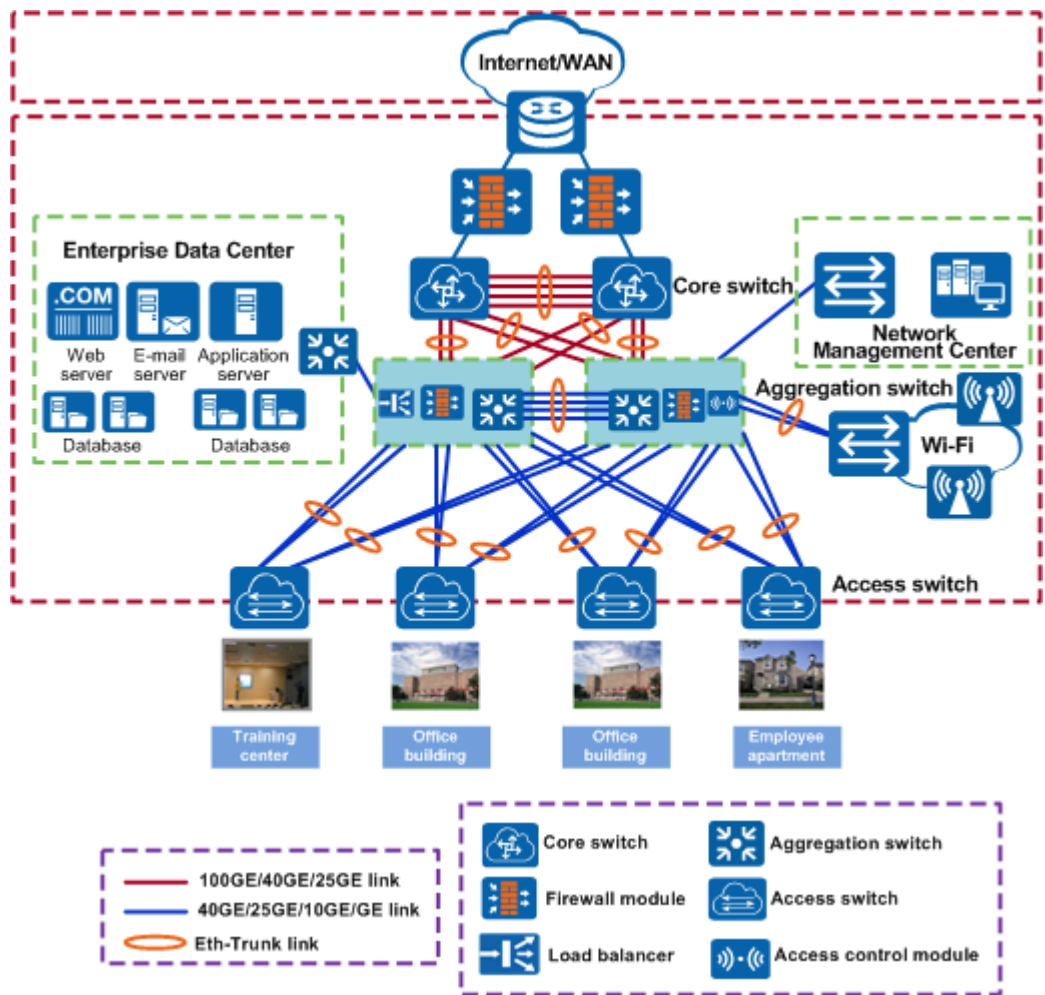
Figure 4-1 Typical application of CloudEngine series switches in a data center



4.2 Campus Network Applications

On a typical campus network, multiple CE16800/CE12800/CE12800E/CE8800/CE7800 switches are virtualized into a logical core switch using CSS or iStack technology. Multiple CE8800/CE7800/CE6800 switches at the aggregation layer form a logical switch using iStack technology. CSS and iStack improve network reliability and simplify network management. At the access layer, CE6800/CE5800 switches are virtualized using technologies such as M-LAG to provide high-density line-rate ports.

Figure 4-2 Typical application of CloudEngine series switches on a campus network



5 Performance Specifications

For the product specifications, log in to [Huawei official website](#) to download the product brochure or product feature list for channel (if your account is unauthorized, contact Huawei local office).