

# Extend beyond connectivity with ZTE and Red Hat



*"The integration of ZTE's comprehensive end-to-end solution with Red Hat OpenStack [Platform] and Red Hat OpenShift represents an ideal customer synergy for both our operational requirements."*

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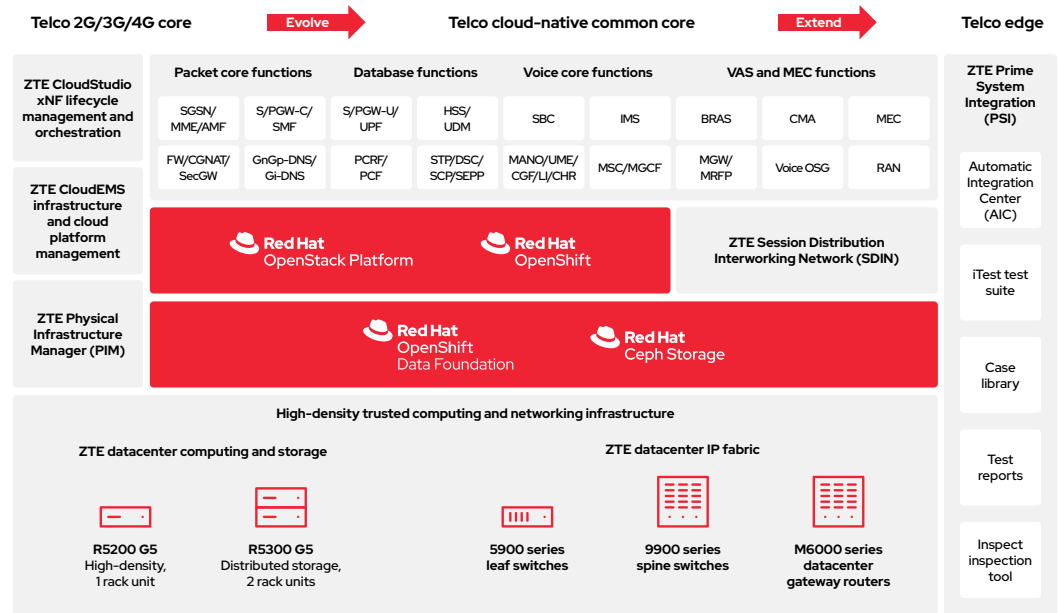
**Wang Quan,**  
Vice President and Deputy  
General Manager of  
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## Mobile data growth requires efficient 5G networks

As mobile data traffic grows and subscriber demands evolve, agility and efficiency become increasingly critical for modern 5G networks. By migrating 5G network functions to cloud environments, telecommunications operators can optimize resource use and construction costs. However, building a multivendor 5G core network across diverse platforms and systems can bring new performance, security, integration, operations, and maintenance challenges. Telecommunications cloud infrastructure from Red Hat and ZTE Corporation simplifies deployment and integration of cloud-native and virtual network functions (CNFs and VNFs), so you can rapidly deliver efficient, agile 5G services that meet subscriber demands.

## Deliver 5G services in less time with a cloud-native platform

Red Hat and ZTE offer a cloud-native foundation for 5G CNFs, VNFs, and core functions across entire networks—from core datacenters to edge deployments—with the reliability and availability that telecommunications operators require. Based on Red Hat's open, programmable, cloud-native software foundation and ZTE's trusted computing and networking infrastructure and [cloud core](#), this fully managed solution provides an agile, enhanced cloud environment for modern 5G services with the flexibility to support future technologies. Verified, certified network functions and infrastructure from ZTE—a leading global provider of communication technology—let you provision a converged core network that delivers 2G, 3G, 4G, 5G, and fixed access in agile, efficient cloud-native environments. [Red Hat® OpenStack® Platform](#) and [Red Hat OpenShift®](#) deliver performance, reliability, and security capabilities to telecommunications cloud infrastructure. With advanced automation features and extensive toolsets, these cloud-native platforms speed and simplify development, deployment, and management of CNFs, VNFs, and core functions across modern telecommunications networks.



#### List of acronyms

BRAS = Broadband remote access server

CMA = Converged message architecture

FW/CGNAT/SecGW = Firewall/carrier-grade NAT (network address translation)/security gateway

GnGp-DNS/Gi-DNS = GnGp Domain Name System/Gi Domain Name System

HSS/UDM = Home subscriber server/unified data management

IMS = IP multimedia subsystem

MANO/UME/CGF/LI/CHR = Management and orchestration/unified management expert/charging gateway function/lawful interception/call history record

MEC = Mobile edge computing

MGW/MRFP = Media gateway/multimedia resource function processor

MSC/MGCF = Mobile switching center/media gateway control function

PCRF/PCF = Policy and charging rules function/point coordination function

RAN = Radio access network

S/PGW-C/SMF = Serving packet data network gateway-control plane/session management function

S/PGW-U/UPF = Serving packet data network gateway-user plane/user plane function

SBC = Session border controller

SGSN/MME/AMF = Serving general packet radio service support node/mobility management entity/access and mobility management function

STP/DSC/SCP/SEPP = Signaling transfer point/diverse signaling controller/service communication proxy/security edge protection proxy

VAS = Value-adding service

Voice OSG = Voice Open Service Gateway

xNF = Various network function

Figure 1. Deploy a managed cloud-native solution with Red Hat and ZTE.



*"ZTE is a leading integrated communication information solution provider that serves telecom operators, government and enterprise customers, and consumers globally. ZTE 5G Common Core solution has been vendor-validated on Red Hat OpenShift as a fully converged core network product for 2G, 3G, 4G, 5G, and fixed networks."*

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## Increase agility and efficiency across your operations

Efficient deployment and operations are crucial for delivering reliable 5G services and reducing network costs. With a cloud-native, carrier-grade network solution from Red Hat and ZTE, you can ensure optimal performance at scale on a foundation that increases interoperability and security while reducing service degradation and downtime.

- ▶ Deliver both optimized 5G and traditional services using CNFs and VNFs in an innovative, flexible, cloud-native environment.
- ▶ Deploy and operate valuable new services in less time with consistent operational experiences across your networks.
- ▶ Transform operations and business models with standardized configurations based on certified network functions.
- ▶ Ensure consistent, repeatable cloud deployments with a modular software foundation customized to meet the network demands of your subscribers.
- ▶ Speed implementation and simplify orchestration across your network—from compute infrastructure and [Red Hat Ceph® Storage](#) to containers and microservices—with streamlined deployment and testing processes.
- ▶ Reduce the risk of network downtime with technologies that automate manual, error-prone processes across platforms.
- ▶ Increase visibility into your cloud-native environment with the built-in governance and application lifecycle management capabilities of [Red Hat Advanced Cluster Management for Kubernetes](#).
- ▶ Enhance infrastructure and workload protection and visibility throughout application lifecycles with [Red Hat Advanced Cluster Security for Kubernetes](#).

## Learn more

Learn how [Red Hat and ZTE](#) deliver integrated communication information solutions to telecommunications operators, government and enterprise customers, and consumers globally.



## About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. [A trusted adviser to the Fortune 500](#), Red Hat provides [award-winning](#) support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

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