INNOVATE AT THE EDGE WITH INTEL-BASED RED HAT VIRTUAL CENTRAL OFFICE

Accelerate deployment and scale as needed
High-performing Intel technology allows service providers to manage existing services and prepare for the future on a common, nonproprietary platform.

Gain flexibility and agility while simplifying operations
Communication service providers are under intense pressure to deliver on 5G investments with new next-generation services delivered at the network edge closer to their mobile, residential and enterprise subscribers. But proprietary, purpose-built legacy hardware is ill suited for such innovation due to long purchasing cycles, overprovisioned environments and high costs. Service providers need a more flexible, agile infrastructure at the edge that will speed deployment, simplify operations, streamline costs and scale as needed in the future.

WWT has collaborated with Red Hat to build the Red Hat Virtual Central Office (VCO) solution. This solution provides a blueprint for modernizing service provider operations at the network edge via an open, software-defined infrastructure platform. It enables service providers to quickly and seamlessly deploy new capabilities for low latency and high-bandwidth application services. WWT’s Red Hat VCO solution is built on high-performing Intel architecture, so service providers can readily insert Red Hat's portfolio of open standards-based products as well as technologies from the ecosystem of certified partners into this pluggable framework.

CUPS = Control and user plane separation
RRU = Radio remote unit
UE = User equipment
CU = Central unit
SGW-U = Serving gateway user plane function
CDN = Content delivery network
MME = Mobility management entity
HSS = Home subscriber server
SGW-C = Serving gateway control plane function
PGW = Packet gateway
CG-NAT = Carrier-grade network address translation
PDN = Public data network

The VCO solution for mobility services, including Voice over LTE (VoLTE)
Red Hat software

WWT VCO solutions use the Red Hat suite of software running on powerful Intel-based hardware from world-leading partners, including HPE, Altiostar, Affirmed Networks, F5 and MYCOM OSI.

- **Red Hat Enterprise Linux**, the world’s leading enterprise Linux platform, provides the foundation for additional technologies like virtualization and private cloud.

- **Red Hat OpenStack Platform**, an Infrastructure-as-a-Service (IaaS) offering built on the popular OpenStack project, provides the scalability and flexibility needed to meet the network needs of telecommunications service providers.

- **Red Hat OpenShift Container Platform**, a comprehensive enterprise Kubernetes platform, provides full-stack automated operations to help manage hybrid and multicloud deployments while optimizing developer productivity.

- **Red Hat Ansible Automation** helps automate complex, routine tasks that can prove to be stumbling blocks in managing expanding networks.

Other software

- **Altiostar** virtualized Radio Access Network (vRAN)
- **Affirmed Networks** virtualized Evolved Packet Core (vEPC)
- **HPE** virtual Home Subscriber Server (vHSS)
- **Cumulus** Linux open network operating system
- **MYCOM OSI** service assurance
- **Trilio** data protection

Delivering outcomes faster

WWT understands the challenges service providers face in testing, deploying and monetizing new solutions. Service providers can leverage WWT’s expertise and **Advanced Technology Center (ATC)** to collaborate in a lab environment to design, build, test and validate VCO solutions that speed up deployments and ensure smooth operation. The ATC can significantly accelerate time to revenue by bringing hundreds of technology providers together in a physical environment that can be accessed virtually from anywhere to test and validate VCO solutions on service provider networks so they are ready to perform as intended in real-world conditions when deployed.

WWT’s **Global Integration Centers** help customers scale quickly by integrating hardware and software components for direct shipment to numerous locations worldwide.