



Transition oil and gas IT to cloud computing with Intel and Red Hat

Intel Cloud Computing:
www.intel.com/cloud

Red Hat Cloud Computing:
www.redhat.com/en/technologies/cloud-computing

Introduction

To improve IT performance, the oil and gas industry is looking to cloud computing. As leaders in the open source development communities for their products, Red Hat and Intel work with developers and industry leaders to offer a range of integrated, tested hardware and software solutions for cloud computing environments. With these solutions, oil and gas companies can adopt enterprise-grade cloud infrastructure while minimizing risk.

Enterprise cloud software from Red Hat

Mitigate risk

In addition to oversight by the open source community, Red Hat has enhanced Red Hat® Enterprise Linux® to offer fully supported enterprise performance, stability, and security. Red Hat Enterprise Linux provides a robust operating system foundation for IT workstations, servers, and clusters to help oil and gas businesses meet industry compliance and regulatory requirements.

Many companies prefer a gradual approach to cloud migration to avoid unnecessary risk and integrate their existing systems with new cloud resources as needed. Red Hat Cloud Suite – a container-based application development platform that includes Red Hat CloudForms®, Red Hat OpenStack® Platform, Red Hat Virtualization, Red Hat OpenShift® Container Platform, and Red Hat Satellite – supports this gradual transition by building hybrid clouds. This approach is based on private clouds that can add capacity on demand from public clouds, such as Amazon Web Services*, Google Cloud Platform*, or Microsoft Azure*.

Deploy and scale infrastructure faster

Building a private cloud infrastructure is a logical first step in transitioning to cloud computing. As internal clouds are more similar to public clouds than to other on-premise architectures, applications running on them can be more easily adapted to public or hybrid cloud infrastructure. Intel and Red Hat participate in OpenStack and other cloud-related open source projects to help ensure reliability and interoperability with Red Hat software and Intel® platform features. Red Hat then packages this innovative cloud software into Red Hat OpenStack Platform, a solution of enterprise open source tools for building and managing private and hybrid clouds.

Simplify cloud development

Moving applications to the cloud is challenging because of fundamental differences between cloud and datacenter infrastructures. Freedom to move applications between large numbers of servers provides much of the benefit of cloud computing. This approach is incompatible with the specific hardware dependencies of traditional applications.

Containers provide support for all of an application's hardware dependencies in a lightweight package. As a result, the container can be copied as needed to run in parallel on public or private clouds. Red Hat OpenShift Container Platform simplifies adoption of this model with Kubernetes* container management.



facebook.com/redhatinc
[@redhat](https://twitter.com/redhat)
linkedin.com/company/red-hat



Cloud-ready hardware from Intel

Streamline cloud adoption

Integrating hardware components from multiple vendors introduces complexity and risk to cloud adoption, potentially delaying migration efforts. Intel® Cloud Builders is a cross-industry initiative with leading technology providers to lower technical barriers to cloud adoption and help organizations build and operate optimized cloud infrastructure.

In addition, private cloud infrastructure from Intel helps oil and gas enterprises transition to hybrid cloud by tailoring hardware to their specific needs.

- Drive actionable insight, count on hardware-based security, and deploy dynamic service delivery with Intel® Xeon® Scalable processors.
- Support hybrid cloud infrastructure and the most demanding applications – including in-memory analytics, artificial intelligence, autonomous driving, high-performance computing (HPC), and network transformation.

Protect hybrid cloud resources

Workloads connected to public clouds may share servers, networking, storage, or other physical resources with external organizations. To protect hybrid cloud data, Intel platforms include built-in trusted infrastructure measures. These measures create a hardware-based network to evaluate and verify server integrity, as well as protect data encryption keys.

Support flexible, cloud-based work

Cloud-based remote workstations achieve independence from any physical single-user system by hosting applications and data in the cloud. These resources can be securely accessed from any machine, in any location, to support oil and gas workloads from equipment monitoring to data analytics. Graphics processing in the cloud helps dispersed technical teams collaborate on massive shared data sets without requiring time and effort to transfer data between sites.

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 integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.



facebook.com/redhatinc
@redhat

linkedin.com/company/red-hat

redhat.com
#F19424_0919

North America
1 888 REDHAT1
www.redhat.com

**Europe, Middle East,
and Africa**
00800 7334 2835
europe@redhat.com

Asia Pacific
+65 6490 4200
apac@redhat.com

Latin America
+54 11 4329 7300
info-latam@redhat.com

Copyright © 2019 Red Hat, Inc. Red Hat, Red Hat Enterprise Linux, OpenShift, CloudForms, the Red Hat logo, and JBoss are trademarks or registered trademarks of Red Hat, Inc. or its subsidiaries in the United States and other countries. Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

The OpenStack word mark and the Square O Design, together or apart, are trademarks or registered trademarks of OpenStack Foundation in the United States and other countries, and are used with the OpenStack Foundation’s permission. Red Hat, Inc. is not affiliated with, endorsed by, or sponsored by the OpenStack Foundation or the OpenStack community.

*Other names and brands may be claimed as the property of others