

# Red Hat's Vision on IaaS & PaaS In the Telco World

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# TODAY'S TELCO NEWS



## TELCO ACQUISITIONS IN THE NEWS

# AT&T IS BUYING TIME WARNER BECAUSE THE FUTURE IS GOOGLE

Date	Acquired	Amount
Oct 22, 2016	<a href="#">Time Warner</a>	\$85.4B in Cash & Stock
May 16, 2016	<a href="#">QuickPlay Media</a>	Unknown
Dec 30, 2015	<a href="#">Carrier IQ</a>	Unknown
Jul 24, 2015	<a href="#">DIRECTV</a>	\$48.5B (terms undisclosed)
Jan 27, 2015	<a href="#">Nextel Mexico</a>	\$1.9B (terms undisclosed)
Nov 7, 2014	<a href="#">Iusacell</a>	\$2.5B (terms undisclosed)
Jul 12, 2013	<a href="#">Leap Wireless</a>	\$1.2B (terms undisclosed)
Aug 2, 2012	<a href="#">NextWave Wireless</a>	\$50M (terms undisclosed)
Sep 26, 2011	<a href="#">Superclick Networks</a>	\$15M in Cash
Dec 6, 2010	<a href="#">Xanboo</a>	Unknown
Nov 6, 2009	<a href="#">Centennial Communications Corp</a>	\$944M in Cash
Sep 30, 2009	<a href="#">Plusmo</a>	Unknown
Feb 22, 2009	<a href="#">Sterling Commerce</a>	\$3.9B (terms undisclosed)
Nov 10, 2008	<a href="#">Wayport</a>	\$275M in Cash
Dec 4, 2007	<a href="#">Edge Wireless</a>	Unknown

## TELCO ACQUISITIONS IN THE NEWS

# Verizon to End Yahoo Survival Fight With \$4.8 Billion Deal

by **Alex Sherman** and **Matthew Townsend**

July 24, 2016 — 12:15 PM EDT *Updated on* July 24, 2016 — 7:00 PM EDT

**EQUINIX TO ACQUIRE 24 DATA  
CENTER SITES FROM VERIZON**

**Verizon buys Fleetmatics for \$2.4B in cash to step up in  
telematics**

Posted Aug 1, 2016 by **Ingrid Lunden** (@ingridlunden)

**Verizon acquires SocialRadar to buff up MapQuest's  
location data**

Posted Nov 16, 2016 by **Frederic Lardinois** (@frederic)

**Verizon to enhance significantly its  
connected vehicle business with  
the acquisition of Telogis**



# TODAY'S MARKET CHALLENGES



# The communications services market by 2019

Mobile data traffic  
will increase by  
**10x**

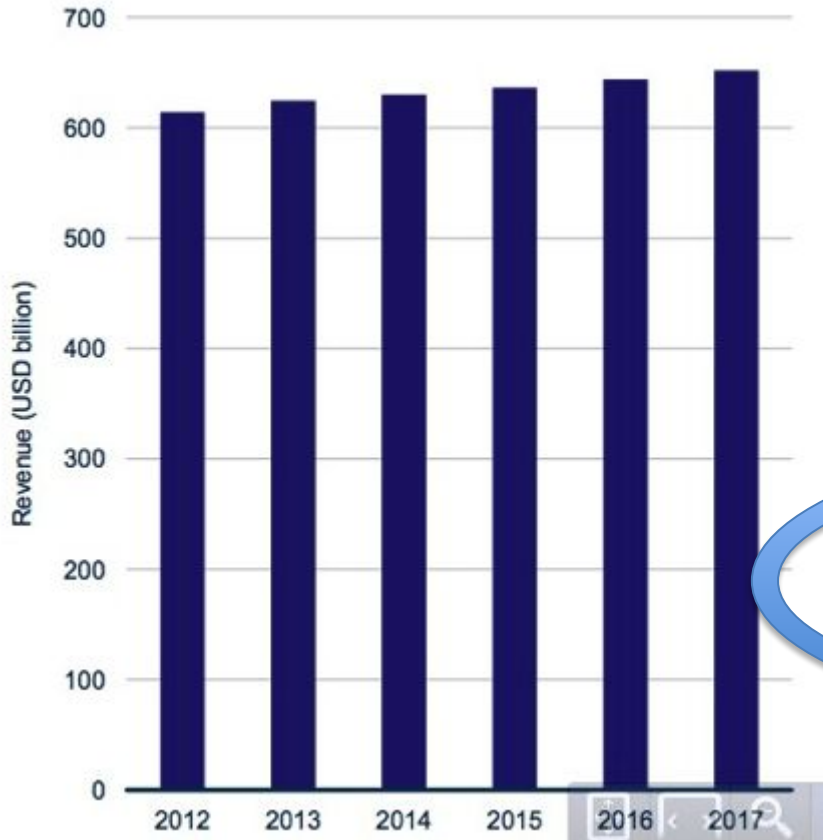
There will be  
**9.2 billion**  
mobile  
subscriptions

**>80%**  
of subscriptions  
will be for mobile  
broadband

The **cost** to support data traffic is **increasing**, but the **revenue** from data services is **growing much slower**.

# The EMEA communications services market

Figure 13: Telecoms revenue, Europe, the Middle East and Africa, 2012–2017  
[Source: Analysys Mason, 2013]



- approx 640 billion USD in 2016
- Growth of 1.2% CAGR from 2012 to 2017
- Largest growth in the MEA region
- Western Europe market expected to decline due to saturation
- Increasing difficulty for CSPs to compensate for the decline in revenue from legacy services with revenue from new services

\* Data for 2013

# MARKETS BEING DISRUPTED BY OTT SERVICES

Founded: 2009  
Expected revenue  
2015: \$10B  
**Valuation: \$40B**



The world's largest  
taxi company  
*owns no vehicles.*

Founded: 2004  
Expected revenue  
2015: \$12.46B  
**Valuation: \$300B**



The world's most  
popular media owner  
*creates no content.*

Founded: 1999  
Expected revenue  
2015: \$15B  
**Valuation: \$212B**



The world's most  
valuable retailer  
*has no inventory.*

Founded: 2008  
Expected revenue  
2016: \$12B  
**Valuation: \$28B**

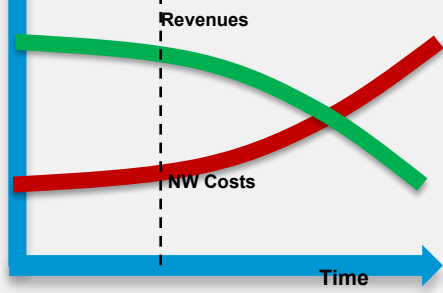
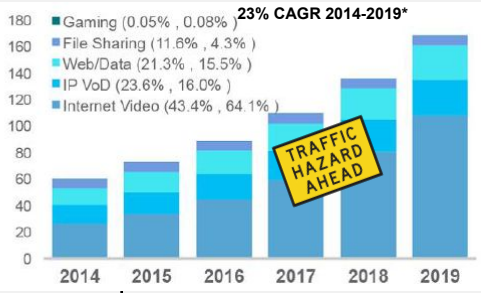


The world's largest  
rooming provider  
*owns no real estate.*

SOURCE: TECHCRUNCH.COM



# THE ICT TRANSFORMATION JOURNEY



Challenge

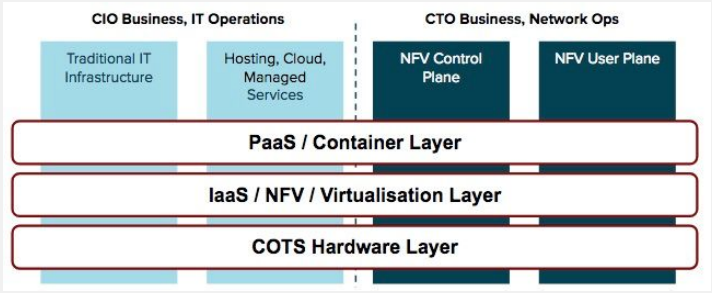
## SERVICE PROVIDER TRANSFORMATION



Technology - Organisation - Processes

agility

Transform



## BUSINESS GOALS



SAVE MONEY

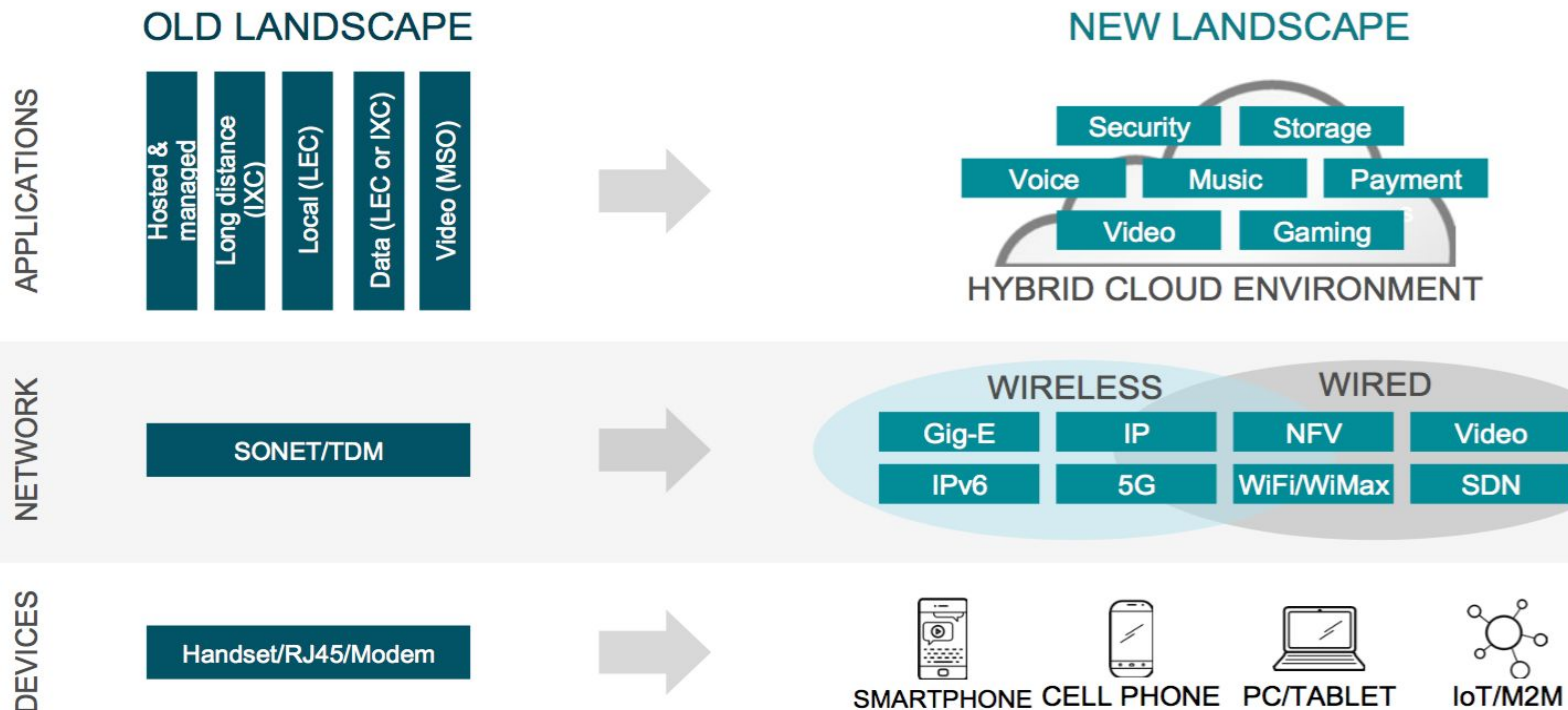


MAKE MONEY



GO FASTER

# THE CHANGING LANDSCAPE



# TELEFONICA UNICA VISION

## ONE INFRASTRUCTURE FOR ALL WORKLOADS

CIO Business, IT Operations

Traditional IT  
Infrastructure

Hosting, Cloud,  
Managed  
Services

CTO Business, Network Ops

NFV Control  
Plane

NFV User Plane



openstack®

# ENTERPRISES NEED TO QUICKLY ADJUST TO:



## EVER-INCREASING DIGITALIZATION

is changing society and economy through new business models

## CHANGED CUSTOMER BEHAVIOUR

due to increasing numbers of mobile devices and social media

## NEW MARKET PLAYERS

are changing the game with innovative products and services

## COMPLEX IT INTEGRATION

remains an issue, although dedicated IT budget is available for web services

# TELCOS MUST STAY AHEAD TO SERVE THIS DEMAND

## Development Process

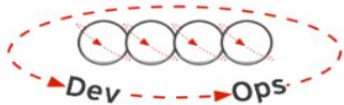
Waterfall



Agile



**DevOps**



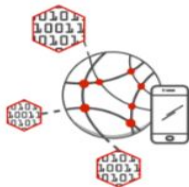
## Application Architecture

Monolithic



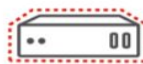
N-Tier

**Microservices**



## Deployment & Packaging

Physical Servers



Virtual Servers

**Containers**



## Application Infrastructure

Datacenter



Hosted



**Cloud**



# BY BUILDING NEW SERVICES & MARKET OFFERINGS



## IoT & M2M Service Platform

[Red Hat and Eurotech Launch End-to-End, Fully Open Source IoT Cloud Platform Project](#)  
[OpenShift Ecosystem: Roambee and T-Systems AppAgile – Delivering IoT with OpenShift](#)



## Mobile App Development Platform

[Telefonica and Red Hat sign global agreement to help companies mobilize their business](#)

## DevOps / Software Development & Cloud Migration Platform

[T-Systems AppAgile](#) also a short [video](#)

## Container as a Service Offering

[Red Hat Container Overview](#)

[Red Hat Container Eco-System](#)

Containers & NFV (separate session with TTO Team)

## Storage as a Service / Big Data Analytics Platform

[Enterprise File Sync & Share with Scale Out Storage by OwnCloud](#)

[Red Hat Gluster for Big Data Analytics](#)

## Cloud Self-Service - Private, Public & Hybrid Cloud

Red Hat OpenStack and CloudForms Portfolio





# RED HAT'S VISION



# BEYOND TECHNOLOGY

INVOLVES TRANSFORMING I.T. AND BUSINESS



## NEXT-GENERATION ARCHITECTURE

New ways of developing,  
delivering, and integrating  
applications



## CLOUD-NATIVE PLATFORMS

Modernize existing and  
build new cloud-based  
infrastructure



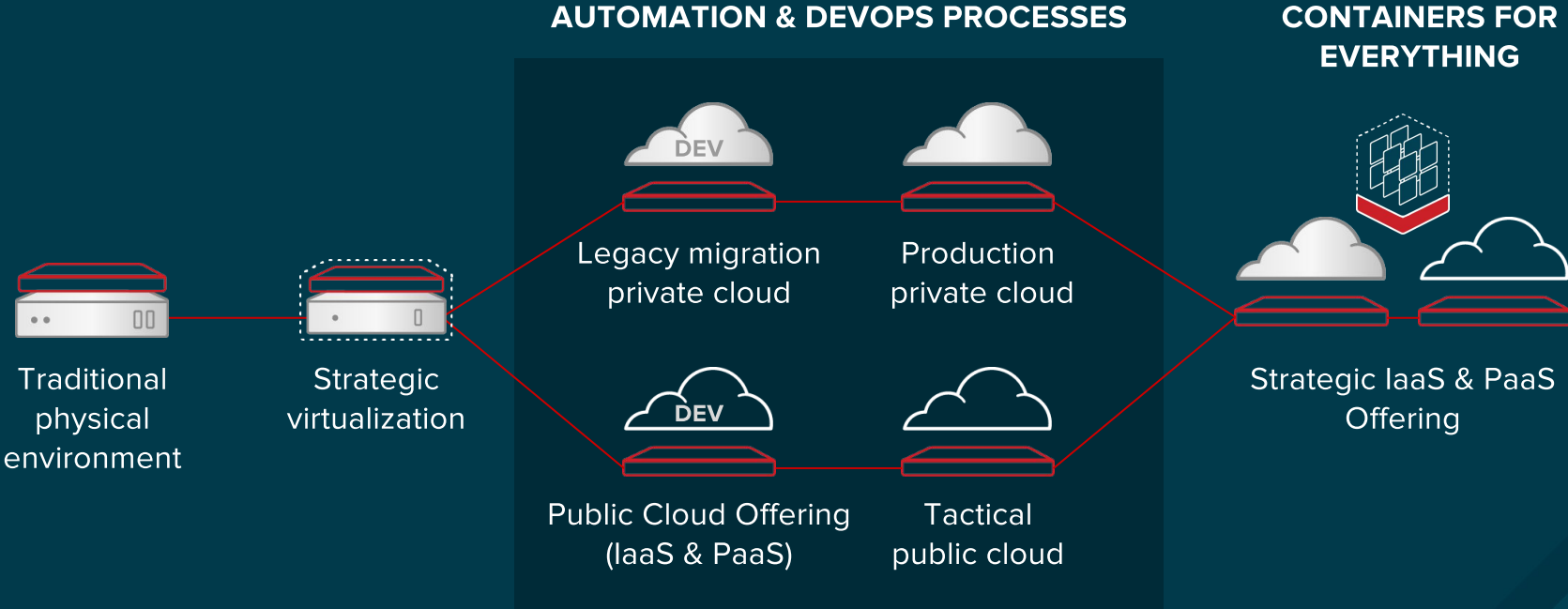
## DEVOPS & CULTURAL CHANGES

More agile process  
across both IT and  
the business



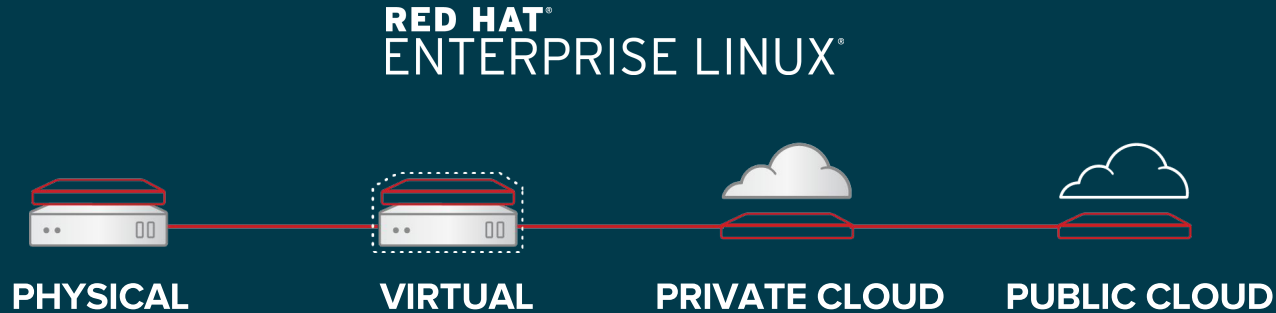
# IT'S A DIFFERENT JOURNEY FOR EVERYONE

BUT HERE'S WHAT IT LOOKS LIKE FOR ONE COMMUNICATIONS SERVICE PROVIDER



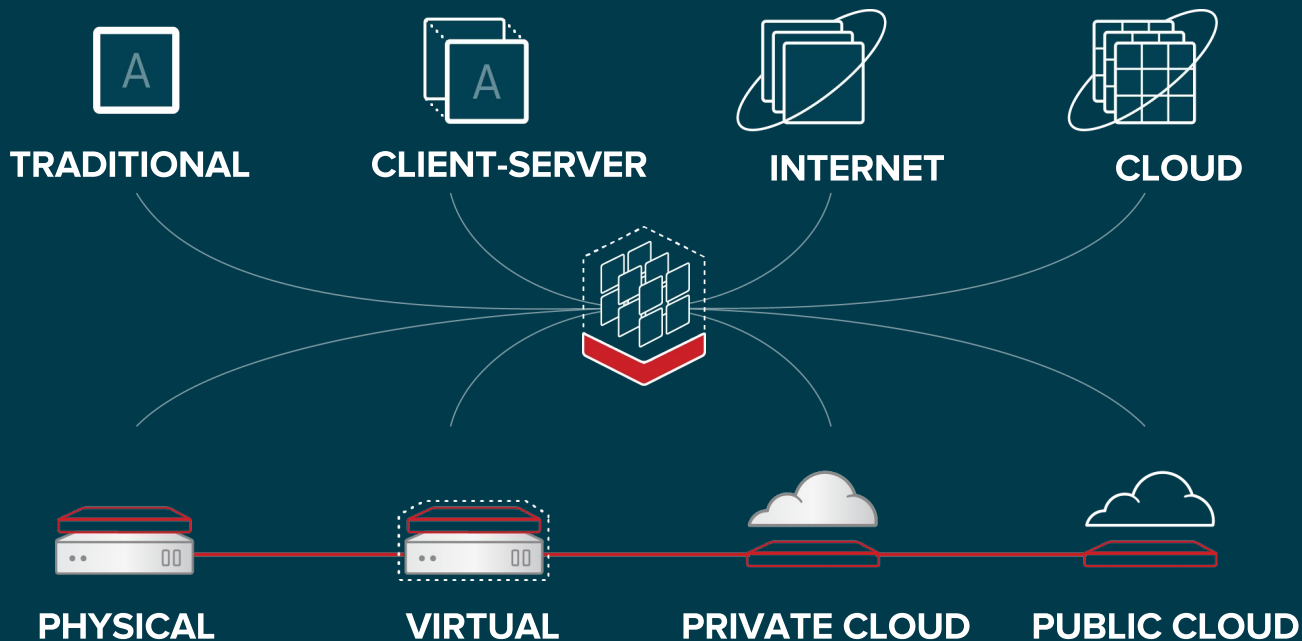
# RED HAT'S VISION: OPEN HYBRID CLOUD

EFFICIENT, STABLE TECHNOLOGY FOUNDATION ACROSS ALL 4 FOOTPRINTS



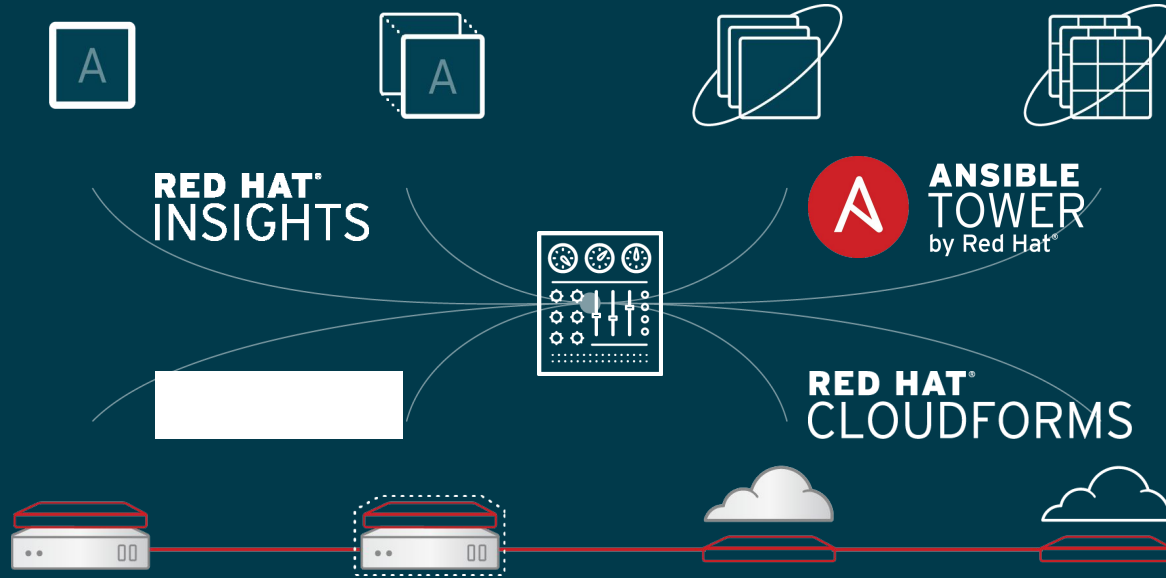
# RED HAT'S VISION: OPEN HYBRID CLOUD

ALL KINDS OF APPS AND ENVIRONMENTS, INCLUDING CONTAINERS



# RED HAT'S VISION: OPEN HYBRID CLOUD

COMMON MANAGEMENT, INTEGRATION, AND AUTOMATION TO KEEP IT ALL GOING

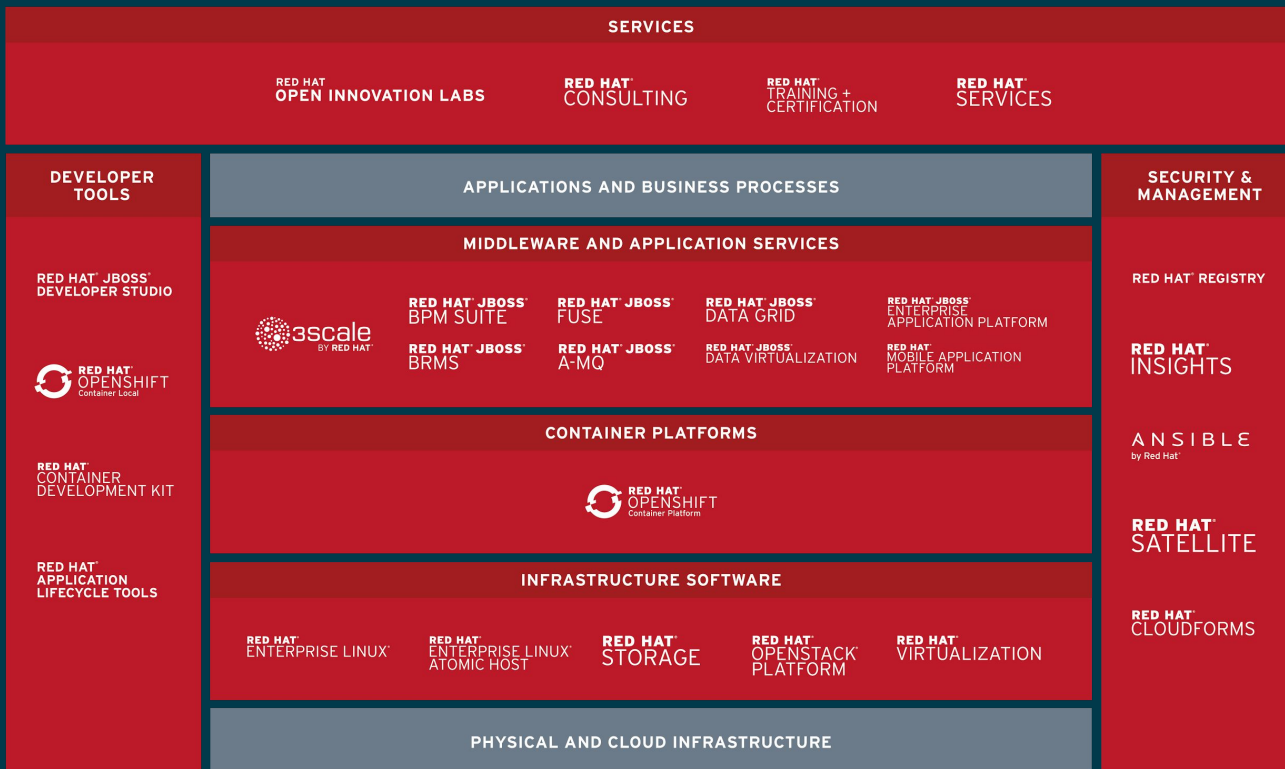


# A COMPLETE TECHNOLOGY STACK



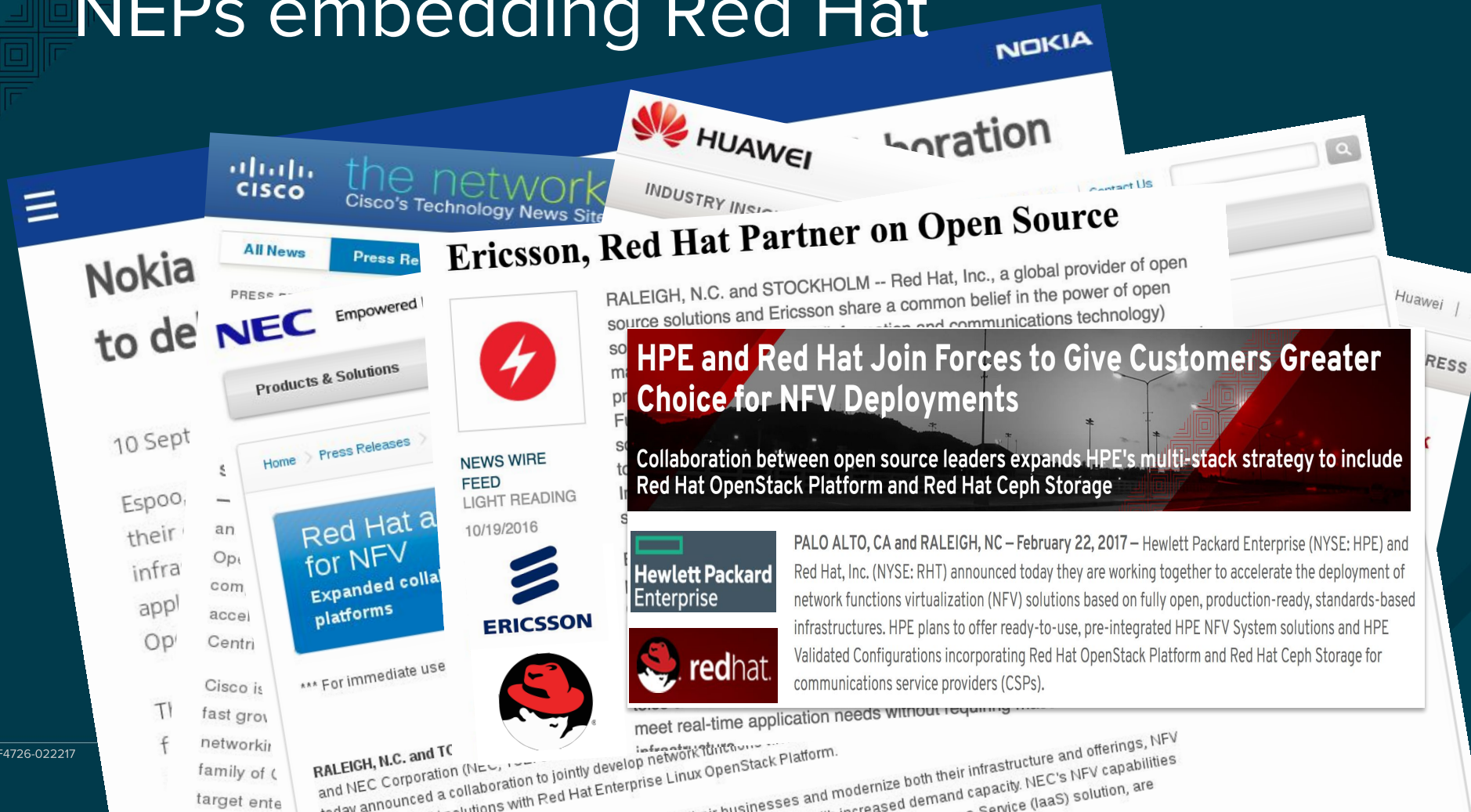
RH0075-02

# IT'S ALL HERE



RH0075-02

# NEPs embedding Red Hat



**CISCO** the network  
Cisco's Technology News Site

**HUAWEI** Collaboration

INDUSTRY INSIGHTS

**Nokia**  
to de

All News Press Re

**NEC** Empowered

Products & Solutions

Home > Press Releases

**Red Hat a**  
for NFV  
Expanded colla  
platforms

\*\*\* For immediate use

## Ericsson, Red Hat Partner on Open Source



NEWS WIRE  
FEED  
LIGHT READING  
10/19/2016

**ERICSSON**



RALEIGH, N.C. and STOCKHOLM -- Red Hat, Inc., a global provider of open source solutions and Ericsson share a common belief in the power of open source solutions and Ericsson (a global provider of communications technology)

**HPE and Red Hat Join Forces to Give Customers Greater Choice for NFV Deployments**  
Collaboration between open source leaders expands HPE's multi-stack strategy to include Red Hat OpenStack Platform and Red Hat Ceph Storage

**Hewlett Packard Enterprise**



PALO ALTO, CA and RALEIGH, NC – February 22, 2017 – Hewlett Packard Enterprise (NYSE: HPE) and Red Hat, Inc. (NYSE: RHT) announced today they are working together to accelerate the deployment of network functions virtualization (NFV) solutions based on fully open, production-ready, standards-based infrastructures. HPE plans to offer ready-to-use, pre-integrated HPE NFV System solutions and HPE Validated Configurations incorporating Red Hat OpenStack Platform and Red Hat Ceph Storage for communications service providers (CSPs).

meet real-time application needs without requiring



# THANK YOU



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