redhat

SKY NEWS DELIVERS 24/7 ROLLING NEWS SERVICE WITH RELIABLE RED HAT ENTERPRISE VIRTUALIZATION

When it became clear that a re-platforming exercise was required for Sky News' hardware infrastructure underpinning the broadcaster service, Red Hat® Enterprise Virtualization was chosen for the project. Virtualization offered the flexibility needed to grow the service, deal with fluctuations in traffic and improve resiliency. Once the the new virtualized environment was in place, however, another major benefit was realised: increased time-to-innovation, which allows Sky News to be more responsive not only to breaking news stories, but also to market changes and audience demands.

SOFTWARE AND SERVICES

Red Hat
Enterprise Virtualization

Red Hat Enterprise Linux®

Red Hat Satellite

HARDWARE

HP

Middlesex, UK ●

HEADQUARTERS

MEDIA/BROADCASTING

450 EMPLOYEES

CUSTOMER SINCE
2006

"*Our speed of change used to be measured in months. Since deploying Red Hat solutions, it's measured in weeks and even days – making us more responsive, not just to breaking new stories and world events, but to changes in market and audience demands, too.*"

JAMES MURPHY
TECHNOLOGY DELIVERY MANAGER, SKY NEWS

BENEFITS

- Increased scalability to handle traffic peaks

- Improved resiliency for 24/7 operations

- Gained new flexibility to grow and develop content services

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SUPPORTING A 24/7 NEWS OPERATION

Sky News is a 24-hour, multimedia news channel, providing audiences with the latest updates on world events and breaking news, across a wide range of platforms, including television, online, and mobile. Sky News' television platform alone reaches an audience of nearly 107 million viewers in 118 countries worldwide. The skynews.com website, meanwhile, is one of the fastest growing on the continent.

Since its launch in 1989, Sky News has built a reputation for the speed of its coverage, which places considerable pressure on the IT team running the infrastructure needed to deliver news — quickly — across multiple platforms.

"Because we're running a 24/7 operation and have to get the news out there as fast as we can, systems must be up all of the time," said James Murphy, Sky News technology delivery manager. "We never know when news is going to break, so even scheduled downtime isn't an option. And we have to cope with very uneven traffic flows because a major piece of breaking news can happen at any time, resulting in huge, unanticipated peaks that we have to handle."

A RE-PLATFORMING PROJECT

Until May 2012, Sky News used a centralised platform, shared with other systems, to run the content publishing system that broadcast and delivered real-time news feeds across a range of platforms. These platforms ranged from web and mobile to on-demand, catch-up services and feeds to third-party commercial clients, such as railway stations and taxi cabs.

This centralised architecture made it hard for the IT team to offer assurance around resiliency and scalability for the Sky News publishing system. And, at a time when the channel is constantly looking to target new audiences and new platforms, as well as roll out new services, making changes and updates to the system could be a lengthy and complicated process.

"We decided that that a re-platforming exercise was the answer to the challenges we were facing," said Murphy. "If we could rebuild the underpinning infrastructure for the Sky News publishing system as a virtualized environment, we knew we'd have the flexibility we needed to grow the service, deal with fluctuations in traffic, and improve resiliency — all at the same time."

A NEW APPROACH TO VIRTUALIZATION

While virtualization was clearly the best option for Sky News, the IT team decided to try a new approach to spreading a virtualized environment over two datacentres. Instead of a conventional active/standby set up, where one datacentre acts as the primary run-time environment and the other as a secondary, disaster recovery site, Murphy and his team planned to run two datacentres back-to-back. The workload of the publishing system would be shared 50/50 across both data-centres, leaving plenty of free capacity to both handle traffic peaks and satisfy disaster recovery requirements.

"This was a step into the unknown," said Murphy: "At first, we weren't even sure if that kind of approach could work for us, but a more conventional approach wasn't going to match Sky News' particular requirements. We did consider an active/standby set up, using virtualization technology from another vendor, but quickly realized it wouldn't allow us to hit the high-availability targets that we needed."

"This is where the Red Hat team really helped us," said Murphy. "They proved we could achieve the kind of back-to-back virtualized environment we wanted and helped make it work for us." The Red Hat team built a prototype of the kind of architecture it proposed in its labs and worked closely with Murphy and his team on testing the concept thoroughly.

"It really was a true partnership," said Murphy. "The amount of help and support we received from Red Hat gave us the confidence to move forward with our virtualization project – even though it was different from most other companies' approaches."

A big advantage with the new environment is that Red Hat Satellite automates many management tasks that would have previously required manual intervention by systems administrators. "With Red Hat Satellite, our team has far less to manage manually, with a lot of routine systems adminis-tration work carried out automatically," said Murphy. "And we've solved a lot of the challenges that we were experiencing in terms of stability. All the things that we struggled with, when we were using a complicated shared platform, we don't struggle with anymore."

ROOM TO GROW

Perhaps the most important benefit of the new virtualized environment for Sky News' content publishing system is that Murphy and his team can now devote more of their time to ensuring that the system grows and evolves, just as Sky News' audiences and services are growing and evolving.

"Because traffic is up, we're launching new services, and we're extending our services to new platforms, there's a lot of pressure," said Murphy. "But with Red Hat Enterprise Virtualization, we can just spin up new virtual machines to take advantage of new opportunities in the market and we know that the environment we have is more than capable of hosting them."

In the new environment, the publishing system is broken down into a large number of discrete areas of function, each held in its own virtual machine (VM). "This highly granular approach makes it easier to identify and fix problems and introduce entirely new areas of function," said Murphy. "Also, if an area of the system needs to scale because it's struggling under a heavy load, then we can easily replicate the VM—multiple times if necessary."

Above all, the virtualized environment has improved time-to-innovation at Sky News. "Our speed of change used to be measured in months," said Murphy. "Since deploying Red Hat solutions, it's measured in weeks and even days—making us more responsive, not just to breaking new stories and world events, but to changes in market and audience demands, too."

ABOUT SKY NEWS

Sky News is an world-class breaking news service with a spirit of innovation and a fresh approach to news broadcasting. As the UK's first dedicated 24-hour news channel, Sky News has built a deserved reputation for being the first to break major news, as well as offering insight and analysis on the latest stories. It is renowned for the speed of its coverage and flexibility of reporting news live across all of its platforms, including TV, mobile, online, radio, and connected TV (e.g., Xbox, Amazon Fire TV, and Apple TV).

ABOUT RED HAT

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 80 offices spanning the globe, empowering its customers' businesses.

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NORTH AMERICA	EUROPE, MIDDLE EAST, AND AFRICA	ASIA PACIFIC	LATIN AMERICA
1 888 REDHAT1	00800 7334 2835	+65 6490 4200	+54 11 4329 7300
	europe@redhat.com	apac@redhat.com	info-latam@redhat.com