

# Making the world a better place with AWS Cloud

Helping nonprofits achieve their missions

# Innovate to improve the world

Amazon Web Services (AWS) and Intel share a passion for innovation. Together, we developed a variety of resources and technologies for high performance computing, big data, [artificial intelligence \(AI\)](#), [machine learning \(ML\)](#), and the [Internet of Things \(IoT\)](#).

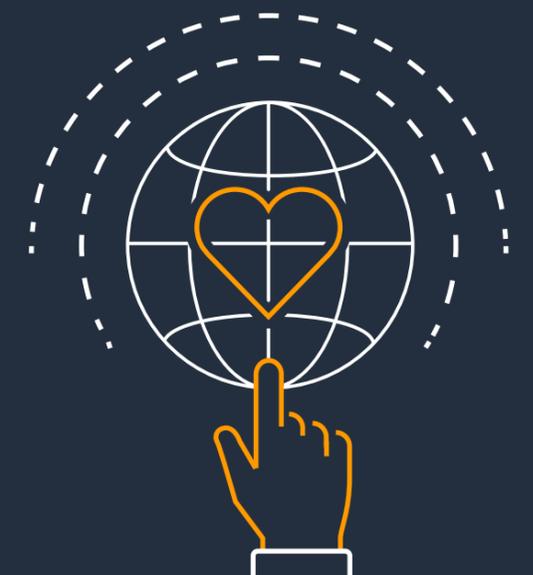
By championing nonprofit organisations dedicated to improving the wellbeing of people and the planet, AWS enables them to shift gears quickly in a fast-changing environment.

In this eBook, see how some nonprofits use the cloud to achieve better outcomes for communities, the environment, and wildlife. Dive deep into their experiences and be inspired by stories of innovation and new ways to use cloud computing.



See how nonprofit organisations build for a better today.

**WATCH THE VIDEO**



## Cancer Research UK

Over the past 40 years **cancer survival rates have doubled** thanks to the progress in cancer research, and CRUK's ambition is to see three-quarters of people surviving cancer within the next 20 years.

Cancer Research UK

# Speeding up the race to cure cancer

Cancer Research UK (CRUK) is the world's largest independent cancer charity dedicated to saving lives through cancer research. Their vision is to quickly reach the point when all cancers are cured, from the most common to the rarest types. CRUK is working to help prevent cancer and diagnose it earlier. Besides developing new treatments, they work to optimise current treatments to make them more effective through personalisation.

CRUK helped save millions of lives with their pioneering work in the prevention, diagnosis, and treatment of cancer. Over the past 40 years, cancer survival rates have doubled thanks to the progress in cancer research. CRUK hopes to see three-quarters of people surviving cancer within the next 20 years.

CRUK can use technology in a secure and governed environment with AWS. Working together, CRUK and AWS speed up deployment cycles to foster innovation throughout the charity.

[READ THE ARTICLE](#)



## The Irish Society for the Prevention of Cruelty to Children

*Childline **answers over 300,000 contacts every year** by phone, text, and web chat. Additionally, the ISPCC introduced more interactive content and self-help options for children and parents using the platform.*

The Irish Society for the Prevention of Cruelty to Children

# Using technology to protect vulnerable children in Ireland

The Irish Society for the Prevention of Cruelty to Children (ISPCC) supports, empowers, and helps children and young people overcome their challenges. The organisation's Childline platform brings together a contact centre, web chat, and SMS services into a single view for a free, anonymous, and confidential 24-hour national listening service for vulnerable children in Ireland. This enables ISPCC volunteers to respond to children and young people more quickly and effectively.

ISPCC's live online chat service has recorded a 45 percent increase in online contacts since their launch. Childline answers over 300,000 contacts every year by phone, text, and web chat. Additionally, the ISPCC introduced more interactive content and self-help options for children and parents using the platform.

The ISPCC turned to AWS to create a cost-effective, secure, and resilient solution to replace its existing websites, digital platform, and supporting databases.



## Munich Leukaemia Lab

*“We have been able to greatly speed up the process of whole genome sequencing. As a result, what used to take us 20 hours can now be achieved in **only three hours.**”*

**Professor Dr. Torsten Haferlach,**  
Chief Executive Officer, Munich Leukaemia Lab

## Munich Leukaemia Lab

# Processing genome data faster to find a cure for Leukaemia

Each year, 500,000 lives are lost due to leukaemia and lymphoma. Approximately every 90 seconds, someone dies of blood cancer. Munich Leukaemia Lab (MLL) is on a mission to find a cure for these diseases. Since 2018, MLL's analysis of more than 4,200 patient genomes created more than 2.4 petabytes of data. MLL is now looking to add machine learning to speed up genomic analysis and improve diagnostic accuracy.

MLL saw a large increase in the organisation's compute and storage needs while using the latest genome sequencing technology. This exceeded the capacity of their local infrastructure. To deal with its growing needs, MLL turned to AWS for cost-effective and secure storage of patient data.

MLL reduced the turnaround time to process patient genome data from 20 to three hours. This reduction in processing time accelerates the research and diagnosis of leukaemia.

[READ THE CASE STUDY](#)



## Aksi Cepat Tanggap

*“With AWS, ACT can rely on a stable cloud foundation to **attract more donations as it continues to pursue its humanitarian mission.**”*

**Yudhi Yuswaldi**, IT Programme Lead, Aksi Cepat Tanggap

## Aksi Cepat Tanggap (ACT)

# Using the cloud when disaster strikes in Indonesia

When earthquakes, typhoons, or other natural disasters strike Indonesia, Aksi Cepat Tanggap (ACT) is ready to help. ACT runs disaster relief fundraisers as well as scheduled donation campaigns, which occur twice a year to coincide with major religious observances in Indonesia. During these times, web traffic can spike up to 300 percent.

ACT used a local data centre and struggled to increase compute capacity during big campaigns. Customers could not navigate the website to donate because the servers kept crashing before processing payments. ACT wanted a more scalable solution to improve stability and reliability on its websites during surges in traffic.

The nonprofit responded in an agile fashion to the COVID-19 pandemic. They set up a hotline linked to its database that facilitated food deliveries for people in need. They also set up a relief fund administered through its website to support microbusinesses that were struggling to make ends meet.

Since migrating to AWS in June 2019, ACT has had no instances of downtime on its websites, even during large-scale campaigns. "We have feedback from users that our website is much more stable since migrating to AWS," Yuswaldi said. Previously, ACT needed 8-10 hours for scaling. It can now achieve the same level of scaling in just 10 minutes on AWS.



[READ THE CASE STUDY](#)

## Panthera

*“Panthera’s scientists across the globe collect a **myriad of data**. A shift to a cloud computing infrastructure was needed to better connect teams operating globally, and to better secure the sensitive data we collect. **Leveraging powerful computing resources** has never been easier.”*

**Ross Tyzack Pitman,**  
Director of Data Science, Panthera

## Panthera

# Wild cats, cameras, conservation and the cloud

Panthera is the only organisation in the world devoted exclusively to preserving the world's 40 wildcat species and their habitats. Scientists from Panthera collect images and data from cameras around the world. They use the data to monitor species in the wild and help in their conservation.

Until 2017, Panthera did not have a structured way to collect, store, curate, and manage data. So, the organisation developed the Panthera Integrated Data Systems (PantheraIDS) tool on AWS to lead the standardisation of all of their data. This better equipped Panthera scientists in their species conservation goals. This tool can be used by non-specialists to process data without needing any particular technical skillset.

Panthera scientists using PantheraIDS now simply connect to cloud computing resources to collaborate, analyse, and gain insights from enormous datasets. This has proven to be a significant advantage within the conservation landscape as it allows Panthera scientists to react faster and more effectively to the global challenges faced by species conservation and protection.



## Jour de la Terre

*Since 1995, Jour de la Terre has helped plant **500,000 trees**, distribute **65,000 rain barrels** and **20,000 compost bins**, collect **100 tons** of electronic waste including 125,000 mobile phones, and present **200 workshops** on food-waste reduction to individuals and organizations.*

Jour de la Terre

# Cutting costs and clutter for Earth Day

Jour de la Terre (JDLT), or Earth Day, a Canadian environmental nonprofit, is on a mission to help people and organisations globally reduce their impact on the environment. The nonprofit multiplies the effects of its own projects by connecting them to the green initiatives of businesses, other nonprofits, and volunteer groups.

More than a billion people in 193 countries take action each year on Earth Day. Over the years, Earth Day has grown into the largest participatory environmental movement on the planet.

JDLT chose to move its IT infrastructure to AWS to improve control and insight without sacrificing agility and flexibility or incurring the expense of staffing an IT department.

[READ CASE STUDY](#)



## WE CARE Community Services

*For people with addictions, the temporary closure of support services due to the COVID-19 pandemic can put their **mental health at risk** at a time when they **urgently need support**.*

## WE CARE Community Services

# Addiction counselling during a pandemic

The disruption and uncertainty of the past several months have left many people feeling anxious and disconnected. For people with addictions, the temporary closure of support services can put their mental health at risk at a time when they urgently need support. In Singapore, the addiction recovery centre WE CARE Community Services helps people connect with counsellors remotely via video chat. The centre uses Amazon Connect—AWS Cloud-based contact centre technology—to scale its services.

WE CARE provided 900 hours of counselling sessions between January and May 2020, double the amount from the same period the previous year. WE CARE plans to continue using Amazon Connect to extend its services to people who cannot travel to the centre for counselling.

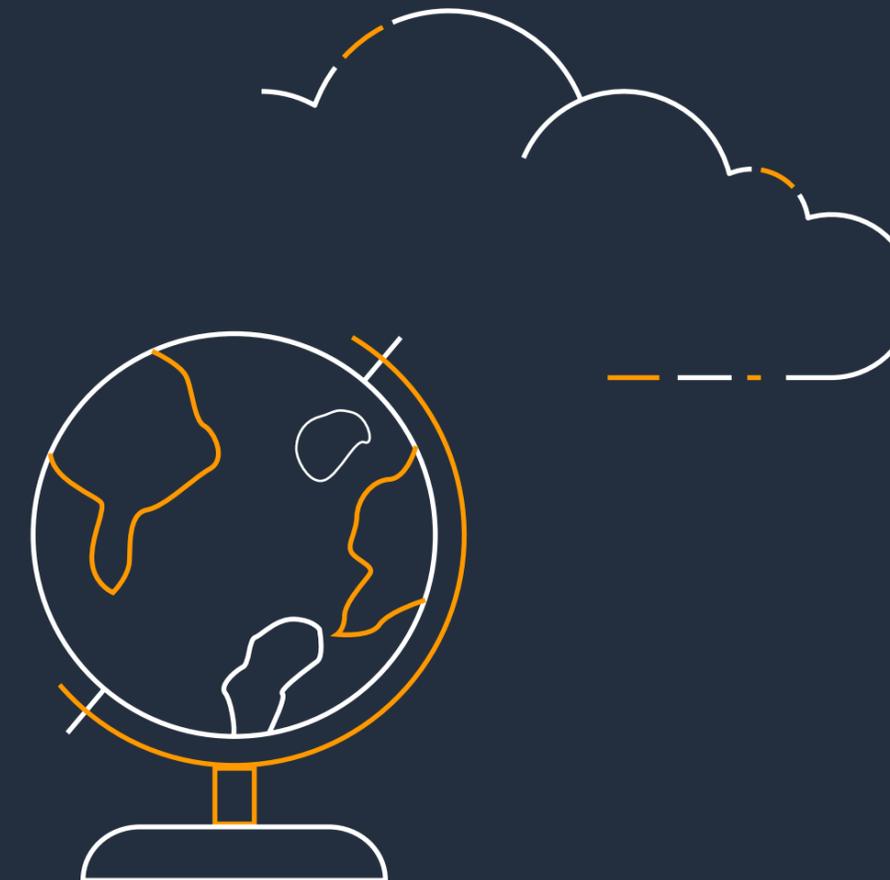


# Our global **infrastructure**

The AWS Global Cloud Infrastructure is the most secure, extensive, and reliable cloud computing environment anywhere, on and off the planet. AWS provides you the cloud infrastructure where and when you need it.

AWS and Intel share a passion for innovation. Together, they have developed a variety of resources and technologies for high performance computing, big data, artificial intelligence, machine learning, and the Internet of Things. Intel® Xeon® Scalable processor families are the foundation of new services being deployed by AWS. AWS instances based on Intel® processors are ready to serve unique and innovative new workloads that demand better data protection, faster processing of greater data volumes, and service flexibility without a hit to performance.

These processors feature Intel® Advanced Vector Extension 512 (Intel® AVX-512), which offers accelerated application performance 2x better than previous generation technologies. These processors also feature Intel® Trusted Execution Technology (Intel® TXT) which is Intel's technology for establishing more secure platforms.



# AWS programs for **nonprofits**



## **AWS Nonprofit Credit Program**

The AWS Credit Program provides access to \$2,000 in AWS Promotional Credits, enabling nonprofits to implement cloud-based solutions and meet their mission goals without upfront investment in physical infrastructure.

[Learn More](#)



## **AWS Cloud Credit for Research**

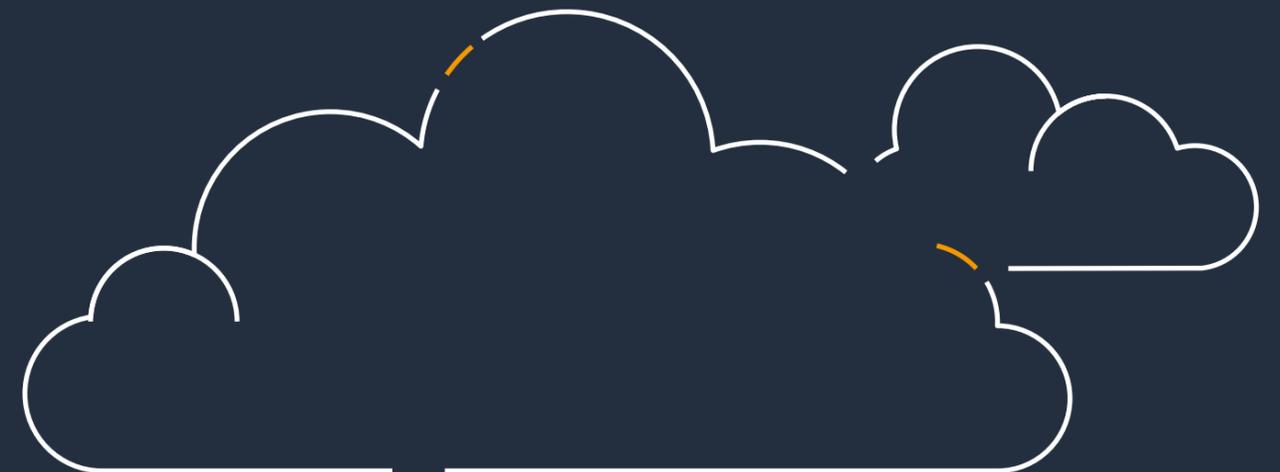
The AWS Cloud Credit for Research Program supports organizations that seek to accelerate their research outcomes through high-performance computing, allowing them to focus on science — not servers.

[Learn More](#)

## **Speak with our team**

Organisations worldwide are transforming their missions every day using AWS. Contact our experts and start your own AWS Cloud journey today.

**CONTACT US**





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