

AI is Coming to Every Data Center

What appeared futuristic is today's reality

Kevin Jones

Principal Product Manager, EGX
NVIDIA

Jason Dudash

Chief Architect, North America Public Sector
Red Hat

THIS IS US

Today's goal is to explore the reality of AI coming to your infrastructure and challenge you to start including AI/ML in your strategic planning.



Jason Dudash

Focused on emerging technology & modern applications & innovation. Specifically how to do those things with open source software

 [@dudashtweets](https://twitter.com/dudashtweets)



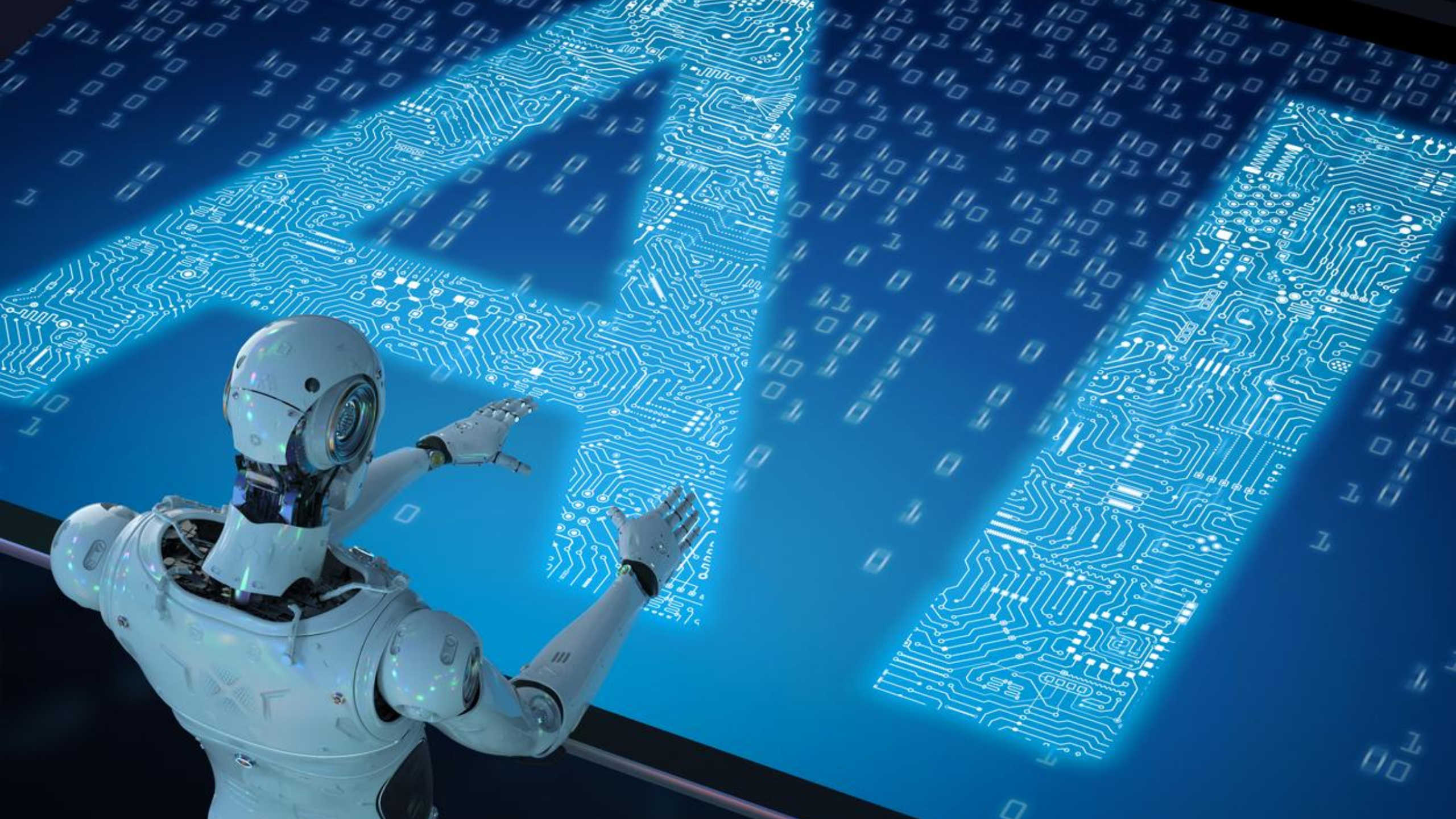
Kevin Jones

Currently working to help others build smart systems via the NVIDIA cloud-native, scale-out AI platform, EGX

 [@kjwthree](https://twitter.com/kjwthree)

The image features a dark blue, futuristic background. In the center, a bright blue light emanates from a rectangular opening, creating a strong perspective effect as if looking down a long, illuminated corridor. The walls of this corridor are composed of vertical lines, suggesting a digital or architectural structure. Faint, glowing binary digits (0s and 1s) are scattered throughout the scene, particularly in the upper corners, enhancing the technological theme. Overlaid on this background is the text "AI = POSSIBILITIES" in a bold, yellow, sans-serif font.

AI = POSSIBILITIES





-2.0mm



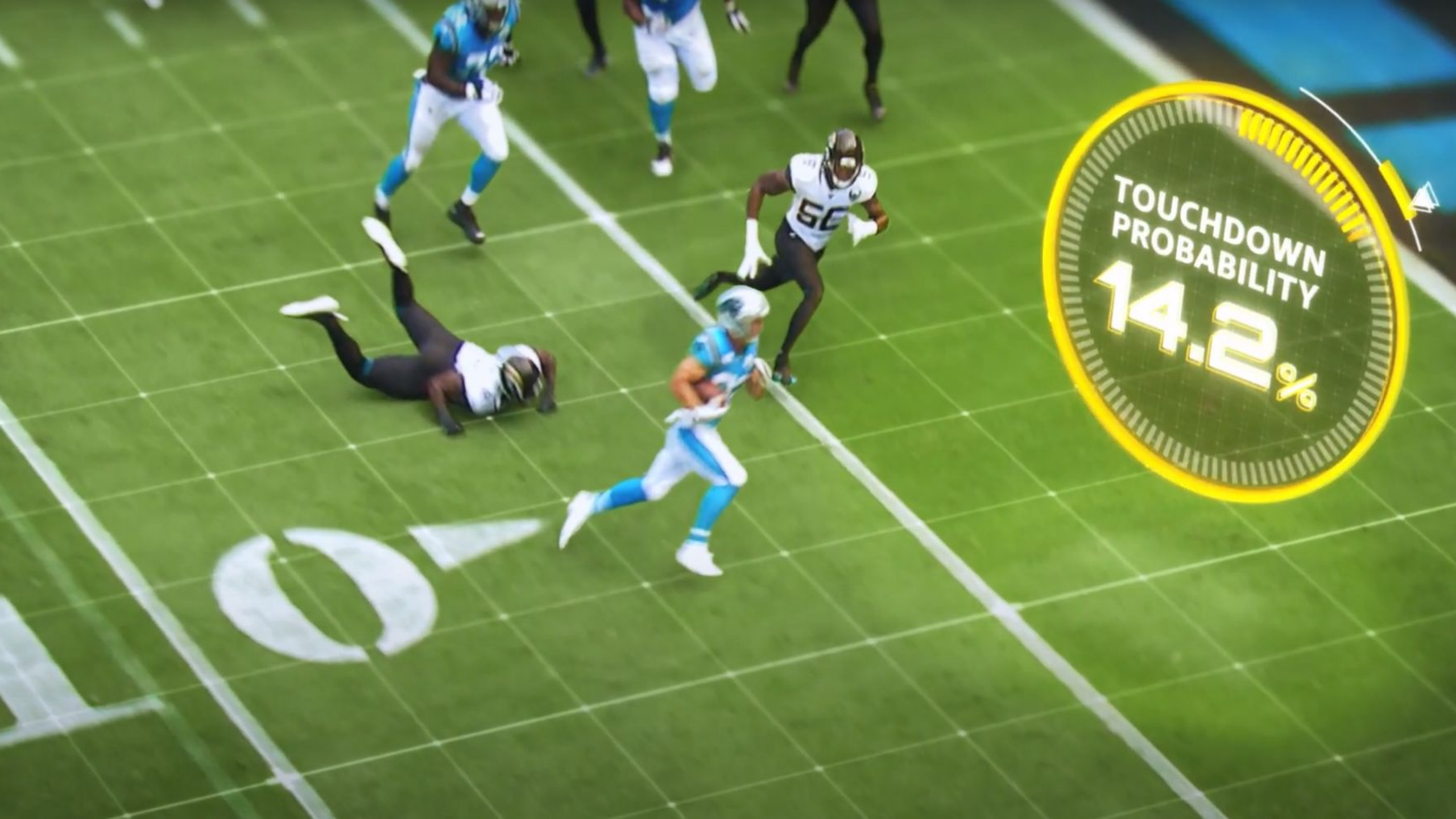
35%



15.0mm



it's an action.



ISN'T AI/ML ONLY FOR THE BIG COMPANIES?

WHAT ARE THE CHALLENGES TO ADOPTION TODAY?



- ▶ Pulling off automation at massive scale is hard
- ▶ Most tools still require programming skills
- ▶ Testing an important application takes expertise

Accessibility to applying and utilizing AI/ML tools and workflows is quickly changing.

EVERYWHERE NESS OF AI

RELEVANCE

MAKE IT EASIER



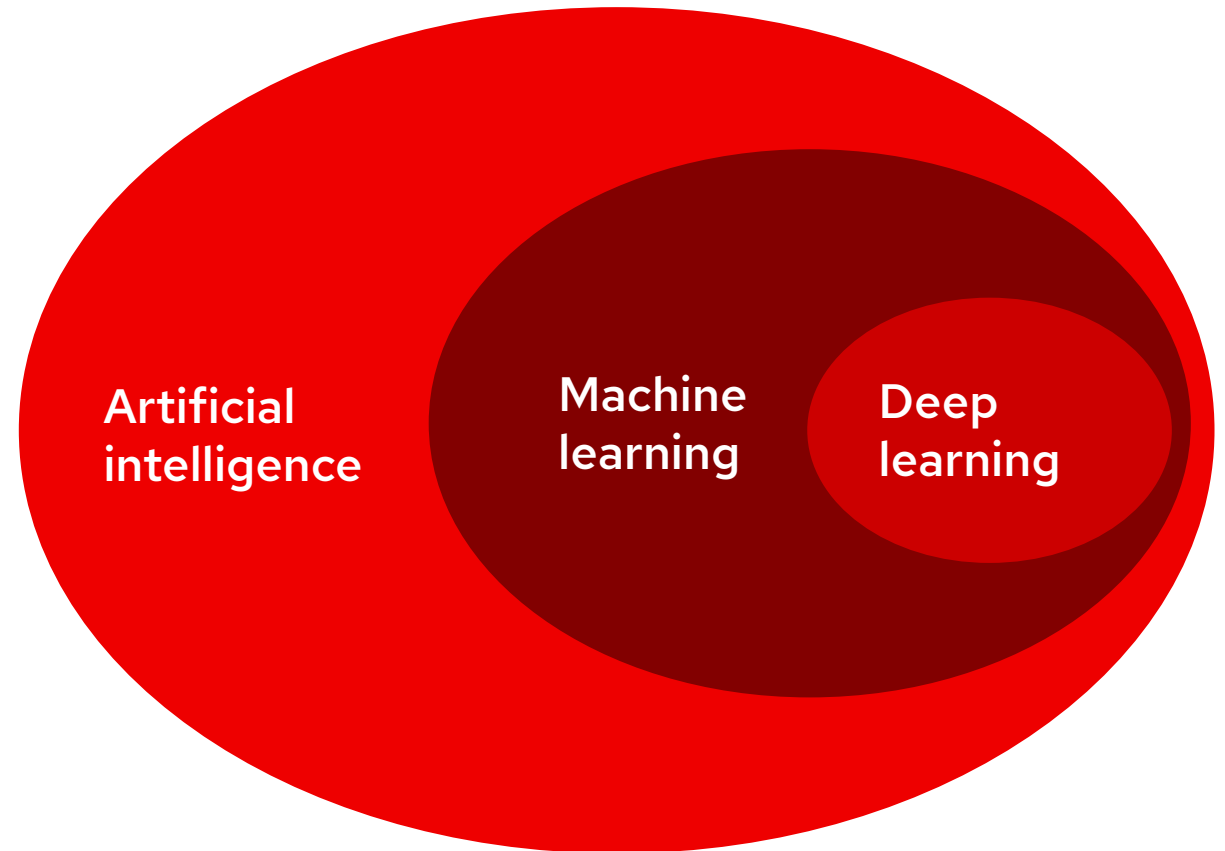
WIDESPREAD POTENTIAL

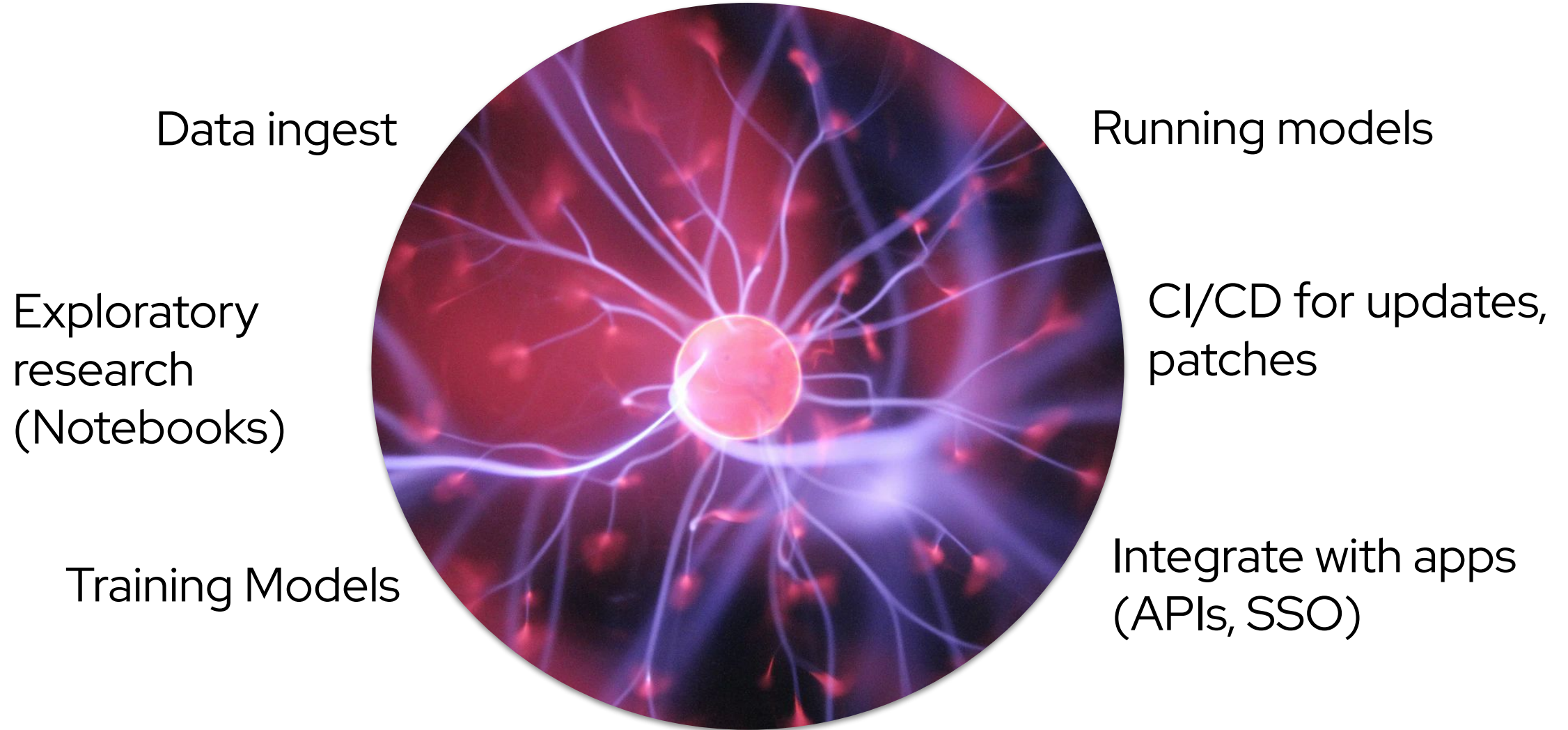
OPEN IS IMPORTANT

AI/ML DATA SCIENCE (A QUICK PRIMER)

TERMINOLOGY

- ▶ Artificial Intelligence (AI)
- ▶ Machine Learning (ML)
- ▶ Deep Learning
- ▶ Data Science



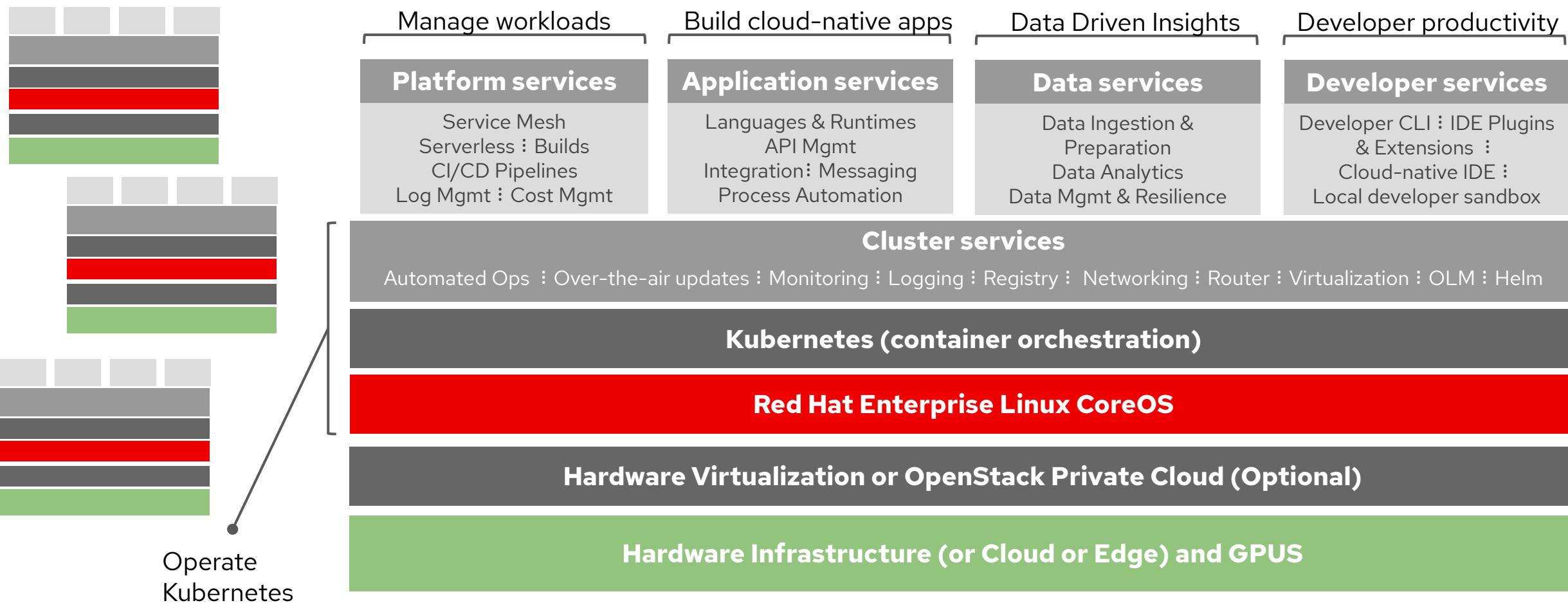


AN OPEN ARCHITECTURE

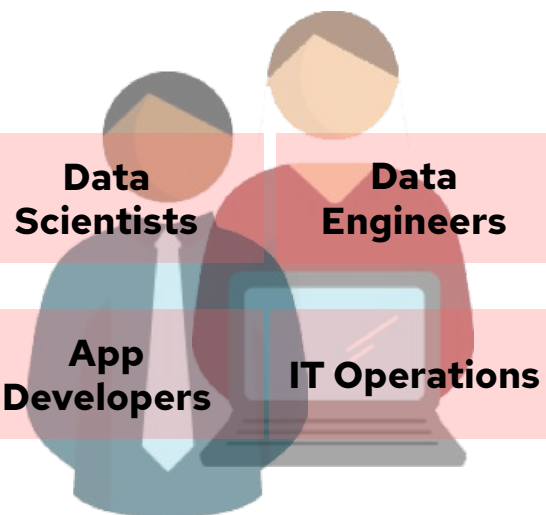
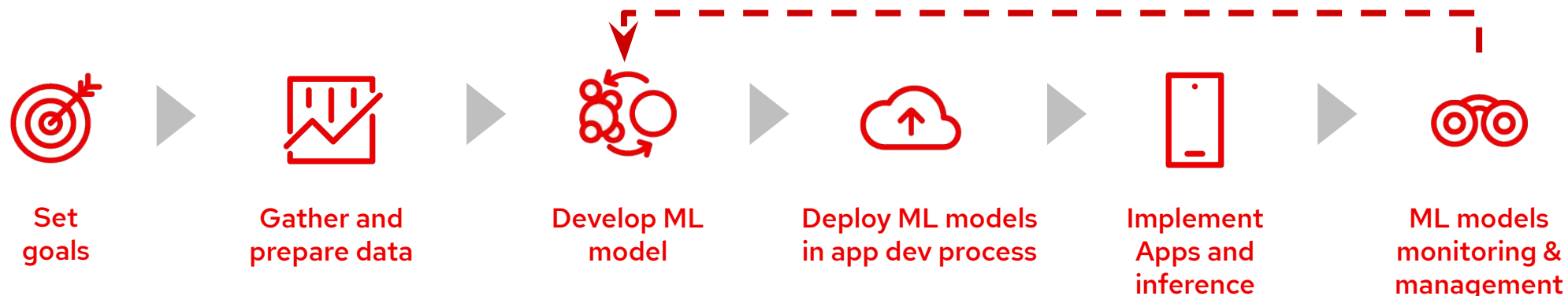
WE MAKE DIAGRAMS LIKE THIS

Multicloud management

Inventory : Policy : Compliance : Configuration : Workloads



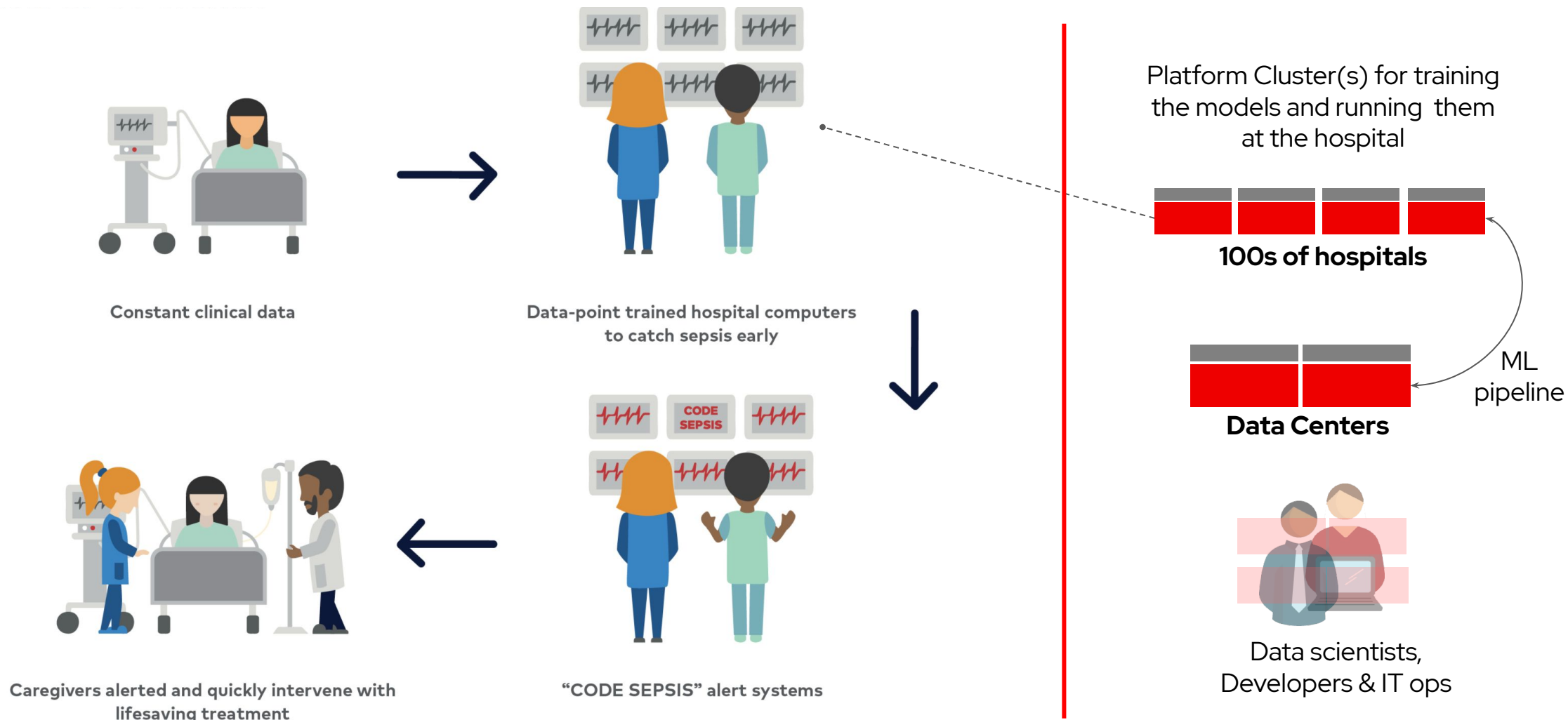
SO TEAMS CAN FOCUS ON THE THINGS THAT MATTER



ML Software tools

PLATFORM

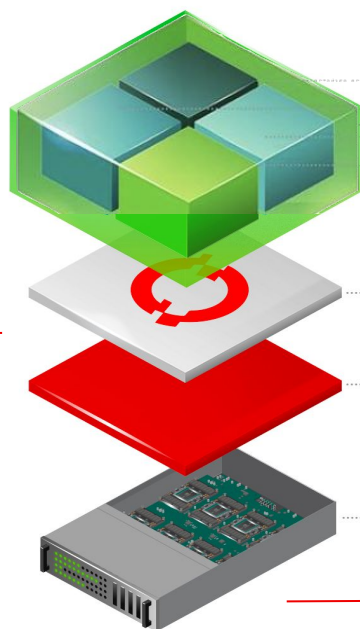
AND THEY CAN IMPLEMENT SOLUTIONS LIKE THIS















AN END-TO-END AI/ML PLATFORM ON OPENSIFT

OpenShift is the open source container platform that integrates DevOps capabilities with key AI/ML software tools and GPUs



Containers make AI/ML apps easy to build and deploy anywhere

 <p>Translation Collection - Natural Language Processing A collection of easy to use, highly optimized Deep Learning Models for Machine Translation. Deep Learning Examples provides Data Scientist and Sof...</p> <p>View Labels</p>	 <p>TLT - CV Training Collection - Intelligent Video Analytics NVIDIA's Transfer Learning Toolkit is a python-based AI training toolkit that allows developers to create accurate and efficient AI models for Intelligent Video Analytics a...</p> <p>View Labels</p>	 <p>Speech Synthesis Collection - Automatic Speech Recognition A collection of easy to use, highly optimized Deep Learning Models for Speech Synthesis. Deep Learning Examples provides Data Scientist and Software Engi...</p> <p>View Labels</p>	 <p>Recommender Systems Collection - Retail A collection of easy to use, highly optimized Deep Learning Models for Recommender Systems. Deep Learning Examples provides Data Scientist and Sof...</p> <p>View Labels</p>	 <p>OpenShift Demos Collection - Infrastructure This collection is about using Nvidia GPUs and software stack on OpenShift cluste</p> <p>View Labels</p>
 <p>Object Detection Collection - Object Detection A collection of easy to use, highly optimized Deep Learning Models for Object Detection. Deep Learning Examples provides Data Scientist and Software Engi...</p> <p>View Labels</p>	 <p>NGC - Getting Started Collection - Beginner Looking to get started with containers and models on NGC? This is the place to start..</p> <p>View Labels</p>	 <p>NeMo Collection - Deep Learning NeMo is a toolkit for creating Conversational AI applications. NeMo toolkit makes it possible for researchers to easily compose complex neural network ...</p> <p>View Labels</p>	 <p>Language Modelling Collection - Natural Language Processing A collection of easy to use, highly optimized Deep Learning Models for Language Modelling. Deep Learning Examples provides Data Scientist and Sof...</p> <p>View Labels</p>	 <p>Image Segmentation Collection - Image Classification A collection of easy to use, highly optimized Deep Learning Models for Image Segmentation. Deep Learning Examples provides Data Scientist and Software Engi...</p> <p>View Labels</p>

GPUs deliver the needs of compute-intensive applications like AI, ML, and DL

LEARN MORE

- ▶ [Red Hat Collaboration with Boston Children's Hospital](#)
- ▶ [Case Study: Ministry of Defense \(Israel\) + Red Hat + NVIDIA](#)
- ▶ [BMW AI Edge and ML to streamline warehouse systems](#)
- ▶ [Video of HCA Healthcare Sepsis Identification Story](#)
- ▶ [Tech Topic: AI/ML on OpenShift](#)
- ▶ [LEARN: Get hands on with ML on OpenShift](#)
- ▶ [GET AI. LEARN AI. BUILD AI](#)

THE BIGGER PICTURE

WHY WOULD YOU NEED AI/ML?






Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

 [linkedin.com/company/red-hat](https://www.linkedin.com/company/red-hat)

 [facebook.com/redhatinc](https://www.facebook.com/redhatinc)

 [youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)

 twitter.com/RedHat

