

Weather Content Production

Summary

Max systems from The Weather Company®, an IBM® Business, are designed to provide accurate and distinctive weather forecasts across TV, web, mobile, OTT and social media platforms. These solutions incorporate innovative features that help you attract and respond to audiences while driving engagement, awareness and advertising revenues.

Our offerings can be scaled to your needs and budget requirements with configurations built for stations both large and small. Additional features may be purchased and integrated into your video production system as needed to support the growth of your station.

Better weather storytelling across platforms

Weather is a popular topic and often among the most-used types of mobile apps. Being a trusted weather provider can bring frequent, active users to your channels, creating an opportunity to promote other content and paid advertising.

As audiences increasingly turn to digital channels for rapid weather coverage, broadcasters need an effective cross-platform presence. To meet the output requirements for various platforms, stations can adopt a centralised production solution that can rapidly repurpose content across all outputs, such as TV-to-mobile or social-to-TV.

A streamlined multi-platform approach can also offer a competitive advantage to local stations over global weather and news providers by enabling them to deliver their unique local expertise and trusted, recognised personalities across digital platforms. It can also establish a “connection with home” for people currently living outside the country.



Max overview

The Max Platform is a centralised weather-content production system that is designed to support TV, web, social, OTT and mobile outputs through a single user interface. These solutions include unique features that are integrated into a common user interface to accelerate productions, automate workflows and streamline operations.

The Max Platform is supported by data from The Weather Company, the world's most accurate weather forecaster overall.¹ Forecasts incorporate many weather observations and over 100 models. Output is supervised by human meteorologists who adjust the forecast when needed.

Graphics are driven by weather data. Updates to temperature lists and weather icons are automated to help presenters spend more time focusing on telling a better weather story.

Max is a modular system that allows you to select functions for immediate use and add more later as needed. The software can be purchased or leased as a site license in a software-as-a-service model and runs on a platform of HP systems that are custom built to our specifications. The platform has a 5-year warranty.

Max is available in two configurations—one intended for small production requirements and a second that can scale to include many workstations. A small production system includes two HP systems that provide all operational functions. The larger system typically has five or six HP systems that separate the functions onto dedicated resources to increase production capacity.

Hardware can be added later if production requirements increase. Smaller deployments have a direct upgrade path to larger deployments and larger deployments can grow further.

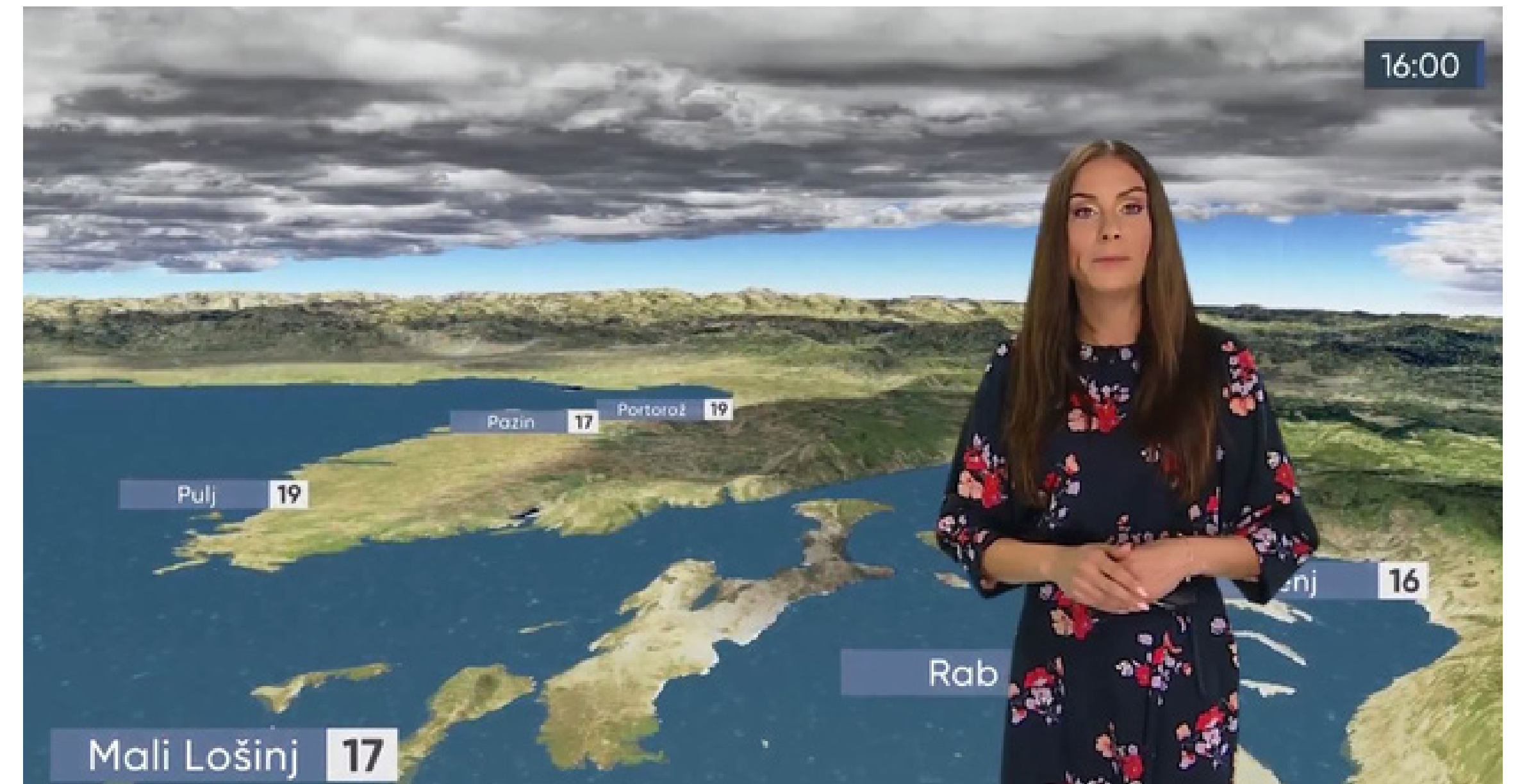


Figure 1: Max production system. Accurate forecasts presented in an eye-catching way are essential to capture viewers. Covering “Weather as News” can help ensure maximum return on investment in the Max system.

Max overview

Content production volume determines the platform. A Max workstation is licensed to operate as either a content creation tool or a live TV playout machine. There is no rendering time required. Outputs from workstations are routed to your master control room. As such, a workstation cannot be used to create and broadcast at the same time. If the production schedule requires this capability, more workstations are needed. Software is licensed per site.

Stations can also use Max Cloud to help manage infrastructure costs and improve business continuity by deploying redundancy and disaster recovery workflows in a scalable, security-rich IBM Cloud® environment.

Software modules

Several software modules work as extensions of the base product to add functionality. The base Max Weather module offers 3D graphics, SDI video, and web and mobile outputs. This includes Max One, which enables you to record presentations with a webcam for use on a website or app, supporting a more rapid and efficient way to create multiple updates for digital platforms.

Max Studio adds interactive control for a TV presenter on either chromakey or touchscreen displays. **Max Connect** is an iPad-based solution that can be used in a studio or on location to remotely control show playout from a tablet.

Max Sky creates a realistic image of the forecasted sky conditions and provides wind streams (particle animation). With **Max Traffic**, road information can be presented alongside weather with graphics operated by our road traffic data feed.

Max Reality is an augmented reality display through which presenters appear among the graphics, enhancing the studio experience and adding outdoor presentation capabilities.

Max Social streamlines posting to Facebook, Twitter and Instagram from the Max interface. For digital platforms, we offer a complete white-label B2B weather app and widgets that are suitable for embedding into existing apps.

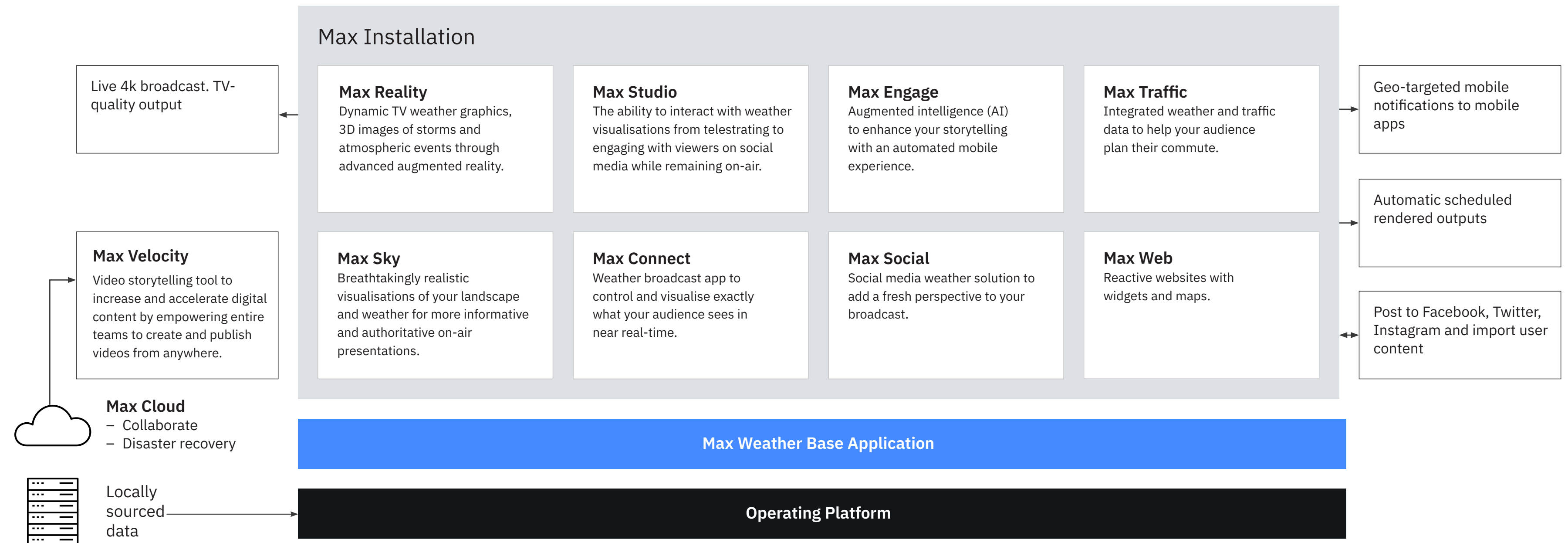


Figure 2: Max modular system. All software modules operate in the same user interface, which is designed to be intuitive. An online client portal and a user community provide access to learning modules and tutorials as well as interaction and feedback from The Weather Company experts and other users.

Max overview

To go beyond basic weather displays, **Max Engage** searches for conditions of interest and produces content that can be distributed by region. Only users likely to be impacted receive the message to help ensure relevancy. A push notification appears on a user's phone that invites them to click into your app. Promotions such as a five-second pre-roll can be included and adapted to suit your audience. Clients who have deployed automated posting in Max Engage have seen significant increases in views.

Stations deploying in Max Cloud can also implement **Max Velocity**, a browser-based tool that allows you to increase production by enabling videos to be created using only a laptop from virtually any location with an internet connection. A simplified user interface empowers even novice users to generate studio-quality content and publish it directly to digital platforms.

Max Web provides widgets and interactive maps for website applications. [Click here](#) to visit our demonstration page, which supports multiple languages. Select the country from the drop-down menu.

Max services

As part of our service, we build the first set of show graphics to your specifications in a collaborative effort with your creative team. Once this is complete, a trainer visits your site to help you get started. We also offer an online learning portal where new scene templates are made available in addition to instructional webinar recordings and other tutorial materials. Our support team is available 24/7 on the phone and by email. Technicians can remotely access workstations to diagnose issues and make fixes. A hardware health monitoring app installed on the platform will also send an alert to our technicians and your users if a problem occurs. When this happens, we proactively initiate the delivery of a replacement through HP.

Further descriptions can be found in the [Media section](#) of our website.

The following are examples of customer outputs using Max:

- [Max Studio client example →](#)
- [Max Sky examples →](#)
- [Max Connect client example →](#)
- [Max Reality client examples →](#)
- [Max Traffic example →](#)
- [Max Social explainer →](#)
- [Non-weather client examples →](#)



Weather data

With three decades of growth in the weather industry, The Weather Company is among the top-rated forecasters that have developed weather data with high accuracy and resolution. We support our solutions with state-of-the-science technology, over 200 meteorologists and scientists and a strong commitment to continued research and development.

Our data offerings have been driven by our work in aviation, insurance, risk and energy sectors in which short-term and long-term forecast accuracy is critical to decision-making.

The Weather Company provides forecast data to billions of global users every day using an internally developed system we call Forecast on Demand (FoD).

FoD uses the following approaches:

1. Vast amounts of external data

We ingest many public data sets to help drive higher resolution. These external data sets include airport weather observations, tight mesonet data observation grids, radar, satellite, radiosondes (weather balloons) and aircraft reports. We also pull in a vast array of National Weather Prediction (NWP) models.

2. Proprietary data sets

As a company embedded in multiple industries, we leverage existing business ventures to gain access to unique data, further improving the output of FoD. For example, our aviation customers provide us with additional upper-air data. We also utilise a global network of over

100,000 personal weather stations that share updates every five minutes.

3. Multi-model, multi-ensemble forecast outputs

Rather than using a single model, FoD intelligently blends over 100 models and ensembles based on recent performance against our high-density surface observations. One of these models is the IBM GRAF platform.

4. Human over the loop (HOTL)

Our forecast process helps human meteorologists supervise the output without delaying the publishing process. The HOTL tool helps modifications be rapidly applied to an affected area and automatically expires those adjustments when appropriate.

5. Robust and scalable

FoD is delivered from a geographically diverse cloud platform. Four data centres in Europe, Asia and the eastern and western US help ensure that even if there's a regional failure, the system remains operational.

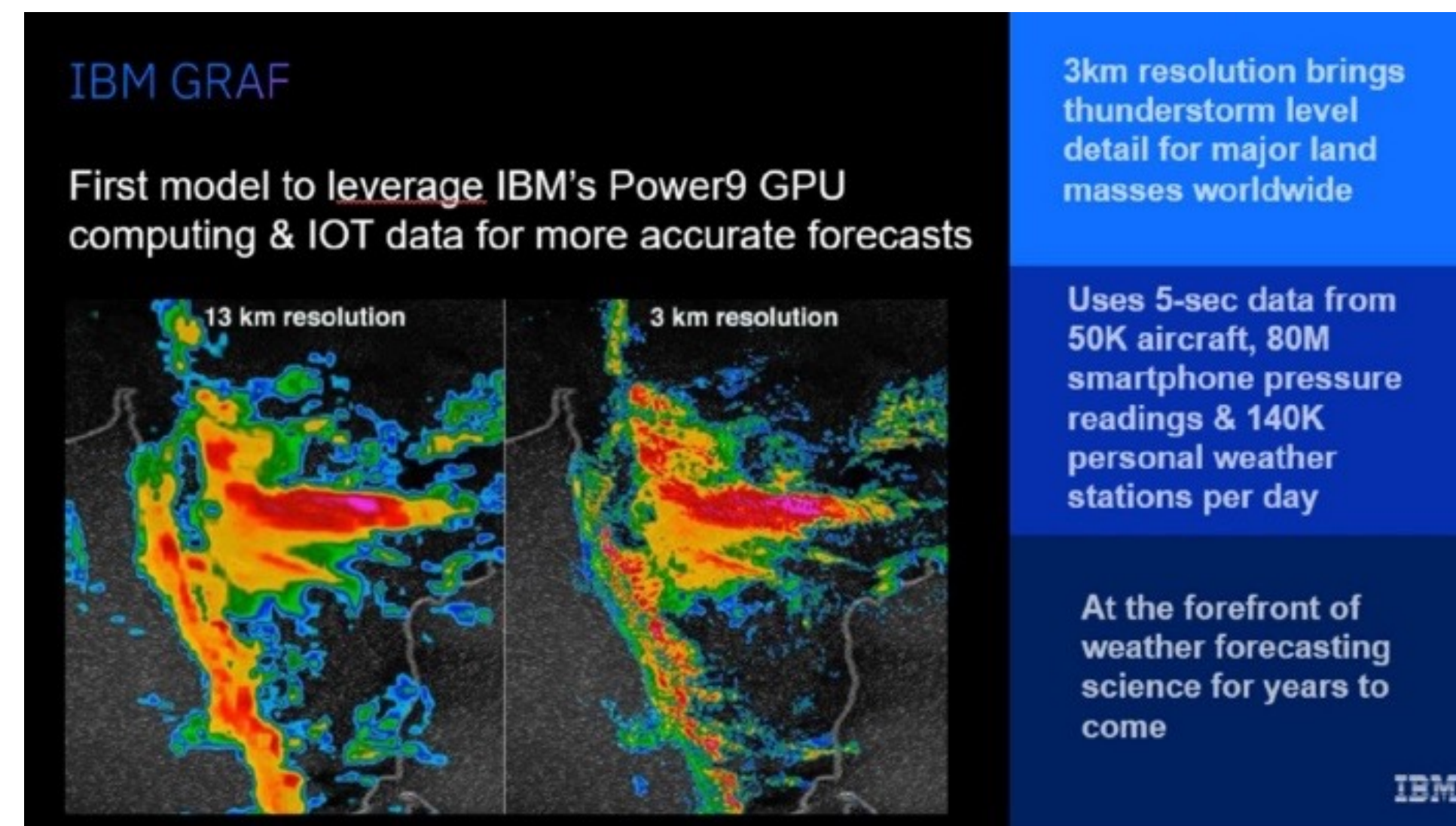


Figure 3: IBM Global High-Resolution Atmospheric Forecasting System (IBM GRAF) The first model to leverage IBM POWER9™ GPU computing to help deliver accurate and localized forecasts to users around the globe.

Near real-time weather

Along with the forecast, it can be equally important to know what the weather is right now. If a bulletin or app incorrectly describes current conditions that can be verified by looking out the window, the user or viewer will have limited confidence in the forecast.

That's why our Currents on Demand (CoD) product integrates data from various public and proprietary sources to create an output of the current weather. Sources include radar and satellite data, personal stations and a growing number of IoT devices, such as location and barometric pressure readings from smartphone users who have opted to share data.

This helps create a more accurate output even if no sensors are available at a specific location.

Accurate weather

The result of these efforts is a set of products built to drive a multitude of industries, such as aviation clients who incorporate weather data when making decisions regarding safety. The Weather Company has a strong interest in maintaining a leading position in forecast accuracy and continues to invest in the science and technology to support that objective.

Local data ingest

Max also supports the importation of locally created weather data—such as from a national meteorological office—that is available in well-known meteorological formats. We are happy to accept data samples and test them in Max.

Local data is included in Max as another option in the drop-down menu of data feeds and presented alongside global data from The Weather Company. For example, you may opt to use local data for regional coverage and global data for news in other parts of the world.

Click [here](#) to learn more or request a demo of our media solutions.

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