

Reaping the rewards of a successful cloud strategy

Wicklow County Council

The Challenge

- Migrate all geospatial data and GIS services to the cloud

The Benefits

- A six-fold increase in performance
- Easier management of 450 data sets
- Time freed up to deliver new public services
- Faster publication of up-to-date information
- Business continuity during COVID-19 pandemic

Wicklow County Council made the bold decision to move 100% of its geospatial data and GIS services to the cloud and is now reaping the rewards of this successful strategy. The migration to ArcGIS Online has improved application performance, simplified data management and freed up time for the creation of new apps to improve public services.

The Challenge

For more than 25 years, Wicklow County Council has used Esri's ArcGIS geographic information system (GIS) solutions in areas ranging from local development planning to highways maintenance. Throughout this time, it has continued to evolve its use of GIS and embrace new technologies to improve its delivery of public services.

When the council introduced ArcGIS field apps to capture data remotely, it began working with geospatial data in the cloud more extensively than before. Soon, as much as 20% of the council's GIS data was being stored in the cloud, in ArcGIS Online. Paddy O'Flaherty, GIS Officer at Wicklow County Council, says, "We saw the benefits that we were getting from working in the cloud, and it made us think, why don't we just move everything to the cloud?"

The Solution

Wicklow County Council made the decision to migrate the remaining 80% of its geospatial data and GIS services to ArcGIS Online, which is hosted and maintained by Esri Ireland. Then, within weeks, COVID-19 emerged, and the unprecedented demands of this pandemic both endorsed the council's new cloud strategy and accelerated the pace of the migration. "When COVID happened, we learned, pretty quickly, that having essential data saved on ArcGIS Online, where it could be easily accessed, was a huge benefit," O'Flaherty says.

Any data required to support the council's critical response to the pandemic was migrated to ArcGIS Online first. This included data about first responders and other organisations working to support people during lockdowns. In the second phase, the council focused on data commonly accessed and interrogated by citizens, such as the County Development Plan, to improve the quality of its service to the public. At this point in time, the council also shared additional data sets via its ArcGIS Online Open Data Portal.

The migration continued throughout the pandemic and, in the third phase, data and GIS services used by staff were moved to ArcGIS Online. "Not only did we migrate data to ArcGIS Online; we also did a thorough data quality review, to make sure that the data we were sharing online was the primary and most accurate data set available," O'Flaherty explains.

In the final phase, Wicklow County Council migrated 'live' data sets that are edited and updated daily by different departments, such as data on vacant development sites. The whole migration was completed in around eighteen months and carried out gradually alongside other GIS projects, with no additional resources or budget, at a pace that didn't overwhelm the GIS team.

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Paddy O’Flaherty, GIS Officer, Wicklow County

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The Benefits

A six-fold increase in performance

The migration to ArcGIS Online led to an immediate improvement in GIS performance for both council employees and members of the public who use the council’s web-based GIS apps. “Users can select a thousand features, and ArcGIS Online will still return the results straight away,” O’Flaherty says. “Planning queries load in five seconds now rather than thirty or more seconds previously. ArcGIS Online is also very reliable and has no problems at all handling peaks in traffic.”

Easier management of 450 data sets

O’Flaherty and his colleagues are now saving a significant amount of time, as they don’t need to make software updates or upgrade servers with additional RAM. ArcGIS Online also simplifies data management tasks, making it simpler for the council to keep its 450 data sets current. “Managing data and maintaining our GIS platform is so much easier than before,” O’Flaherty discloses. “Things that were a chore can now be done with the click of button.”

Time freed up to deliver new public services

Without the time-consuming burden of server management, the GIS team at Wicklow County Council has been able to create new web apps and GIS services in ArcGIS Online. Furthermore, as all the data is available in one place, the team can create these apps much more quickly. Offering an example, O’Flaherty says, “We built a new Residential Zoned Land Tax app in just half a day. ArcGIS Online has freed up my time to develop more GIS services to improve our delivery of public services.”

Faster publication of up-to-date information

Wicklow County Council can now make up-to-date data available to the public much more quickly than before. Planning applications data, for instance, is now updated daily as opposed to fortnightly and receives thousands of views per day. In addition, Wicklow County Council can publish its County Development Plan immediately, as soon as it is formally adopted, as all the data is already online. In the past, at least a month of post processing would have been needed before the plan could be published.

Business continuity during COVID-19 pandemic

Last, but certainly not least, O’Flaherty acknowledges the key role that the migration to ArcGIS Online played in ensuring business continuity for the council during the two year period of the pandemic when many staff worked from home. “GIS was one of the IT services that was uninterrupted during COVID,” O’Flaherty reports. “When colleagues needed information, we were able to make it available online straight away to help alleviate the challenges of the pandemic.”

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Wicklow County Council’s Planning GIS Viewer shows thousands of planning applications and their respective site outline for Arlow Town, County Wicklow. GIS Data loads up instantly.

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