

## Top 20 Takeaways from the Esri Partner and Developer Summit Conferences

### 1. ArcGIS 10.5 – a more significant release than anyone really realised

Because Esri didn't say so until now. License changes, new product names (ArcGIS Enterprise), you need it to run Insights, its more cloud, big data, IoT ready. Esri are urging users to upgrade as soon as possible. ArcGIS enterprise is ArcGIS Server, Image Server, GeoEvent Server and GeoAnalytics Server.

### 2. "The Science of Where"™ – Esri's new brand <http://www.esri.com/esri-news/arcnews/winter17/articles/the-science-of-where-our-promise>

This is big deal for Esri (and possibly all of us) as it is about making what we do (as GIS professionals) easier to understand and to enable Esri to more easily reach what they see as a large untapped market – companies that are yet to benefit from "where" and who are not aware that Esri even exists.

### 3. Insights for ArcGIS - Esri's BI tool

You need Insights for data exploration and visualisation. It is Esri's BI tool, and it is awesome already and only going to get better. You can link to spatial and non-spatial data. You can share your work in an interactive way. You need ArcGIS 10.5 to run Insights (including GeoAnalytics Server) as well as Insights licenses.

### 4. Big data, IoT, distributed computing, geo analytics

We saw some incredible displays of the big data processing capability using Azure and AWS clusters. Project Trinity was awesome (80 Azure servers). Questions remain as to how this will be licensed if you spin up and 80 Azure servers all running ArcGIS Enterprise! Distributed GIS or a System of Systems.

Example in demo: 2 million points were aggregated by space and time in 46 seconds.

Space and time cubes are cool – see here:

<http://pro.arcgis.com/en/pro-app/tool-reference/space-time-pattern-mining/create-space-time-cube.htm>

### 5. ArcPro will reach parity with ArcMap later this year

If you are not using Pro yet, start now. Don't do anymore development with ArcMap, use Pro Add-ins. New users should start with Pro and not ArcMap. ArcMap will be supported for years to come, but no more innovation will go into it.

## **6. Esri JS API v4.x will catch up to the 3.x version by the end of the year**

It is mainly editing that is missing at present. The JavaScript API was one of the main focuses of the Dev Conference, with 20+ sessions and demo just about it. Esri will migrate all of their products and demos to 4 as soon as parity with 3.x is reached. 4.3 has just been released, release notes are here: <https://developers.arcgis.com/javascript/latest/guide/release-notes/index.html>

## **7. Named Users @ 10.5 sees some significant changes**

The way of the future regarding Esri licensing and 10.5 sees some significant changes. More are coming. Esri are listening to some of the feedback on Named Users. But the Esri licensing model remains as complicated as ever and maybe even more so.

## **8. Smart communities and smart cities, Geodesign and 3D – big focus**

In terms of geography, Esri is really pushing this - along with 3D. 3D is going to become the norm rather than the exception. Smart communities was being pushed through their Hub concept.

## **9. Implementation patterns and trends**

Esri are all about providing users with the ability to provide 'quick wins' that have immediate impact, show rapid results, have clear success criteria, and are low risk solutions. Configurable products like WebApp Builder serve this purpose, and enable users to 'excite' their stakeholders, and get buy-in quickly.

## **10. Portal Collaboration – sharing items between Portals**

At 10.5 we can start to share content between Portals (via 'shared' groups) where a host server allows guest access. The use case is around sharing rather than replicating items between Portals. Whether this will take off with NZ's relatively small Portal client sites is yet to be seen, but would allow, as an example, DOC to share data/services with MPI from a single source of 'truth'.

## **11. Easier installation of ArcGIS enterprise – Chef <https://github.com/Esri/arcgis-cookbook>**

Chef allows you to deploy ArcGIS Enterprise via a 'Recipe' on premise. After downloading the Software you want to deploy, and setting up the recipe, Chef will handle the silent installation and configuration of your target site. That could be a single or distributed multi machine ArcGIS Enterprise site or ArcGIS Desktop etc. Looks very cool.

## 12. New network model – later this year

Will enable telcos and network companies to fully leverage the system of systems approach – System of Record (Network and asset management), System of Engagement (communication and collaboration), System of Insights (data analysis, geo analytics)

## 13. Portal Replication – @ 10.5 we can start to replicate Portal content

For use in disaster recovery or load balancing etc.

<http://server.arcgis.com/en/portal/latest/administer/linux/overview-disaster-recovery-replication.htm>

## 14. Portal Theming – 10.6? The ability to style a Portal

Coming with 10.6? The ability to style a Portal (in terms of colours, not layout) and all its inbuilt web applications using a config/css file is on the way. All new Web AppBuilder Apps and Widgets should take advantage of this new mechanism so that custom widgets can inherit Portal styles.

## 15. New Python API – brand new for ArcGIS Enterprise

(and different to ArcPy) Can be used to automate and analyse much of the Web GIS (ArcGIS Enterprise). It's very powerful, and functionality will continue to grow. At this stage, it's very Portal and analytics focused, Server APIs will come on line towards the end of the year.

<https://developers.arcgis.com/python/>

One of the coolest ways to use it is via Jupyter Notebook: <https://jupyter.org/>. Esri has Github based notebooks here: <https://github.com/Esri/arcgis-python-api>

Example: this can be used to quickly and easily copy users, groups and other items such as WebMaps between environments (very handy for replicating setups when testing and transitioning between development, staging the production environments).

## 16. Upgrading the mobile tools (Explorer, Collector, Navigator, Survey 123, Workforce)

To use the latest version of the Runtime SDK's which were released late 2016. These are the Quartz (now known as Version 100) SDKs that consolidate and align all Runtime SDKs

## 17. Xamarin for ArcGIS

For those who want to develop cross platform apps using C#



## **18. JS Framework improvements**

Angular 2 is a lot different from 1 (and just being called Angular). Ember 1 to Ember 2 was a more seamless framework transition and not a total re-write. Angular 2 took on a lot of the upgrades and improvements from Ember 2. Dave Bouman presented both Ember and Angular positively with minimal drawbacks.

## **19. Demand for Our Skills**

As GIS professionals and consultants demand seems to be on a rise. Everyone we spoke to from beyond our shores seem to be hellishly busy.

## **20. Developers' Experience**

Despite more OOTB tools and a more configure versus develop feel coming from the Esri software lately, there is still a major focus on the developer experience from Esri and it's getting better all the time. From documentation to samples to better functionality, the Developer is not being forgotten by Esri, in fact quite the opposite...