Leveraging the agreement the State was able to offer, Crook County has been able to dive into the ArcGIS Online world. Some of the driving forces behind this decision were as follows:

1. We currently use ArcReader for many users that need access to our data but do not have much GIS experience. This has worked alright for the users, but ArcReader is not only slow, but an old technology and will go away at some point. Also from a management standpoint it is a major bear to keep up with. We have been trying to find an online solution that can be managed more centrally.

2. The web seems to be the direction that Esri is taking their vision and we want to stay current with their best solutions as soon as possible, and not get left behind with old technologies that are not supported.

3. With web applications comes the ability to utilize geoprocessing services. These give us the ability to use tools not accessible within ArcReader but in an environment easier to use than ArcMap. Also it reduces the number of Basic licenses we need because of user's workflows that require minimal geoprocessing.

4. With everything cloud based, any updates that need to happen are already taken care of by Esri.

5. Using Feature Services within a web application allows for a user to make basic edits to data. Currently within SDE you have two options for editing data. Either you need a Standard license to edit SDE directly or you have to do a check-out/check-in process which adds complexity, and when it breaks it can be a headache.

Esri has a vision that organizations will have a bunch of users that will use the ArcGIS online to create web maps and share them with others. They're trying to simplify mapping so that people that are not familiar with GIS can still share geographic information. The problem we face within Crook County is that most of our users don't even know the difference between different browsers. The concepts of web services or feature services are foreign to them.

While working through the different phases of this migration we ran into a few issues.

1. Nested groups were great especially for labeling because they included halos, but there was an issue with the pop ups for layers that weren't turned on when they were initially brought into a project. This was resolved by bringing in the layers of the nested groups individually. The problem with this was that labels aren't allowed to have halos.

2. Geoprocessing services are not the most flexible. They are great for workflow specific work, but adding some flexibility to them is not easy, if possible at all. There also seems to be no zoom to ability for the services after they run.

3. Domain name and instance name of your ArcGIS server are something to pay attention to. We used mapserver.co.crook.or.us and mapping as our instance name. Apparently

mapserver was a reserved word when sending different requests. Oddly though even if we had mapserver in the domain name but had named our instance arcgis instead of mapping, it would have not been a problem. This is considered a bug and was supposed to be resolved at 10.3. I can't verify this actually has been resolved.

4. The print service works pretty well overall, and it's not that bad to customize the layouts if you find the documentation for it. The only issue we ran into was when we worked with legends. Because of this we removed legends completely.

When we were working through this and creating the services for users to take advantage of, we decided to change up our data distribution model. Historically we had scripts that pushed data out to an ftp. We decided to get rid of that system and distribute our data as Feature Services. Along with that we built relates with our taxlot data to the various table information that ties to it. The advantage of this was that it no longer is a flat one to one, but a truer picture of the table information tied to each parcel. Taking taxlot owner for instance, often there are more than one owner for a taxlot, but historically our parcels information would just be a one to one join and only tie to the first record when joined. We felt this gave the user a better understanding of the data they were using and the limitations that would come if they wanted to build a standard taxlot feature class.

As we transition into this model there is a growing number of routes available for us to explore to help departments and the general public leverage the information available in this web based format. Web AppBuilder works great within the ArcGIS Online framework, but if we want to design custom widgets or applications we'll have to host the applications outside of AGOL and on our own server. This adds a bit of pressure to our servers, but currently we are working with Lane County (and hopefully others very soon) to design a vast library of widgets for people to be able to take advantage of. We would also like for our appraisers to use the Collector app for disconnected use in the field. We are working with the state to see if they can make their imagery from different years accessible offline. At some point in the near future we also see ourselves transitioning from our current open source web application to one built from the Web AppBuilder. The main advantage being the ease of customizability and Esri doing the maintenance.