

MSDIS Update – September 2024

Updated Data

- MoDOT July 2024 Update
 - o These data will be rolled out slower than MoDOT updates normally are. I have handed the data over to MSDIS undergraduate intern Rachel Riley to review and prepare for distribution. This will be her first time helping with data deployment (and hopefully not her last), so it will take a little extra time to make sure everything is properly accounted for. As always, I am grateful for your patience.

MSDIS General News

A New Image Server

On 24 September 2024, I requested a new virtual server be created by the University of Missouri Division of IT to host the upcoming statewide data. This generation of this new machine is the result of the funds transferred to MSDIS earlier this year by the Missouri 911 Advisory Board. The machine had been created, was internally accessible via Remote Desktop, and was ready to have the necessary ESRI components installed by the end of that same day. While we could race through this process to get the new server instance deployed as quickly as possible, I am inclined to take this very slowly. For one thing, the new server will need a URL that identifies it as being reserved just for Missouri's statewide imagery. I also want to take my time with the process of fine tuning the resources available to the new VM since it will be handling much more complex data than the existing MSDIS imagery server.

Donate Directly to MSDIS

After working with the Mizzou University Advancement office for several months, I received confirmation on 27 September 2024 that a crowdfunding account for MSDIS, named the [MSDIS Excellence Fund](#), is open to the public and able to accept donations. Please see Appendix I for more details (some of which may, or may not, conflict with the next item in this section).

AWS Open Data

I am actively investigating the possibility and requirements for transferring the entire MSDIS data catalog to Amazon Web Services storage via the Open Data Sponsorship Program. If the MGISAC approves of the move and MSDIS' application is accepted, the Open Data Sponsorship program would provide the clearinghouse with free AWS storage on the condition that the data we store there are made available to the public (which seems like a fairly low bar if you consider that the data in-question are already being made available to the public). Please see Appendix II for more details.

MSDIS Downtime

No downtime was reported during September 2024.

Image Server Statistics

I continue to search for a reliable option for parsing the server usage. The raw server logs are still being saved if anyone requires them. Should anyone need a rough estimate of usage for certain specific services, we are more than happy to run those numbers via Server Manager.

Appendix I – The MSDIS Excellent Fund

The Funny Version

Do you have a fabulously wealthy relative who happens to be a little eccentric, really loves GIS data, and is looking for a moderately good cause to throw money at? Great news! After working with the Mizzou University Advancement office for several months, I received confirmation on 27 September 2024 that a crowdfunding account for MSDIS, named the [MSDIS Excellence Fund](#), is open to the public. Now your favorite aunt, uncle, grandparent, or highly successful for-profit company can ensure their money is used to make a real difference in the world by helping to pay for server space, undergraduate awards, and whatever other expenses start to pop up as MSDIS balances more and more spinning plates.

The Short Version

Financial donations can now be made directly to MSDIS via the Mizzou Give Direct Program.

The Narrative Version

On 01 March 2024, well before the Missouri state budget was approved or I was made aware of the AWS Open Data Program, I reached out to one of Mizzou Geography's fiscal officers about the feasibility of setting up a charitable giving account for MSDIS. My primary interest was in setting up an account that could be used to fund small monetary awards for MSDIS student interns and, in the off chance that there was enough interest, help cover the increasing cost of data storage. That request was the start of a monthslong chain of emails with the fine folks of the Mizzou University Advancement office. While MSDIS was quickly included as a potential candidate for the Mizzou Give Direct Program, the entire process of getting final approval, choosing the details, creating the necessary account, and setting up the public-facing page took quite a while. On 27 September 2024, the MSDIS Excellence Fund was finally added to the Mizzou Give Direct Program website and opened to the public.

I want to emphasize that, if the timing of this announcement seems questionable, this crowdfunding account was initially imagined months ago. At the time, the state budget had not been passed, the GIS Expansion funds had not been approved, and the AWS Open Data Program had not been brought to my attention. Now that all those things have taken place, though, I understand why this account may seem superfluous. If I can just hand Jeff Bezos all our data for free, for example, why would I still need to drum up funding for storage?

While these various developments have changed our funding landscape, I have no plans to request that the account be removed from the Mizzou Give Direct page. For one thing, the AWS storage is still just theoretical. MSDIS may be a good candidate for the program, but I have not made any moves towards completing an application and we do not yet understand the exact terms of the agreement (such as whether or not we can freely add new data to the AWS storage after the initial setup). Additionally, while the proposed funding from OGI will be transformative for MSDIS, I believe it is still necessary for me to explore all possible avenues for keeping the clearinghouse financially stable. Most importantly, I would like to raise funds for undergraduate awards. Brennan and Rachel, in particular, are being asked to do more work than any of their predecessors and I would like to be able to provide them with more compensation than a gift card and a nice note.

As the situation regarding funding and costs develops, I will reevaluate the necessity of this account.

Appendix II

I was made aware of the Amazon Web Services Open Data Sponsorship Program during the 2024 MAGIC Clearinghouse Summit in August 2024. On the surface, the program aims to provide free AWS storage for open-source data as long as those data remain available to the public. As I was already engaged in on-again-off-again discussions with the Mizzou AWS customer rep, I asked about the program in mid-September 2024. Our rep recognized the program and took my inquiry directly to the Open Data team. I was informed in late September 2024 that, on discussion, the data hosted by MSDIS would be ideal for this program.

My initial thought is that this program would be a huge boon for MSDIS. Not only would it eliminate our storage costs, but it would allow us to utilize what has become the industry standard platform for storing large amounts of data. While I am still unsure of how we would connect to the data to keep our services running, my suspicion is that this move would also improve performance.

While I was under the impression that no clearinghouse had applied for this program yet, I have recently been made aware, through Tracy's excellent recon work at NSGIC, that [at least one state is already using this Open Data platform to store some amount of aerial imagery](#). That eliminates one of the most significant red flags I had about this program. MSDIS has acted as something of a testbed for new platforms in the past, which has not always worked to our benefit. This program, no matter how beneficial it might turn out to be, was not a coal mine that I wanted to play canary to.

I do worry about the longevity of the offer. According to the documentation I have already read, we would need to reapply for the program every two years. I'm not sure what scenario might result in us being approved one year and rejected two years later, but I feel it necessary to acknowledge that the possibility of that happening does exist. Likewise, Amazon could simply eliminate the program altogether, as was made abundantly clear by the major changes to Amazon Drive last year. While the terms and conditions clearly state that we would be warned ahead of time if the program were discontinued, we would still have a limited amount of time to restructure a significant amount of data.

This is not a decision that I can, or ever would, make in isolation. I am just the data steward, and a move of this magnitude must be something that MGISAC agrees to. The University of Missouri would likely need to approve the change, too, though I am skeptical that they would reject the proposal given how much money it could potentially free up. Fortunately, we have several months to consider how to proceed. I am currently reading the relevant literature, and assigning two of my interns to the same task in case my increasingly tired eyes miss something important. Once we have a better understanding of the program, we will report back to MGISAC.