Taking Our Dam Safety Program to the Cloud

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Over the last several years the Iowa DNR's dam safety program has utilized cloud technology to replace our dam inventory database and inspection process.   Our MS Access database was cumbersome to update and developing an in-house database solution typically takes an extensive period of time and budget. Instead we used a "no-code"cloud based solution by Knack.com to host our inventory that included related dam and owner tables of data. This solution has full access control and we're able to provide a public portal for our inventory that provides limited fields to protect owner contact data.   We switched from clipboards and cameras to a tablet based solution for our inspection program. We utilize a cloud based program called iAuditor that runs on tablets. This program allows us to develop our own custom inspection template complete with conditional questions and can be hidden or shown depending on features of the dam. For example, if the dam contains a chute spillway, a yes box can be selected yielding follow-up questions that pertain only to that feature. If they dam does not have a specific feature, those questions remain hidden, simplifying the form and report. Photos taken during the inspection feed directly into the program and subsequent report. The program syncs the inspection to the cloud allowing easy editing and download later in a web based version of the program. The program works offline as well.   This presentation is not meant to endorse any particular solution, but to provide examples of how we've used cloud computing with low costs to improve our dam safety program.