Cadastral System Modernization: the Technology and Business Requirements That Drive the Next Wave of Disruption

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SUMMARY

The business requirements and expectations of a modern cadastral system can be tied directly to technological trends. People expect to be able to access live cadastral data from any device at any time and be able to trust it. Users should be able to access a certain set of capabilities based on their role or group association and know that any edits they perform are tracked and can be validated against a pre-configured set of business rules that ensures the data quality. Working in a distributed environment using service-oriented architecture (SOA) and guaranteeing performance and scalability requires adoption of latest protocols, RESTful stateless design, multithreading programming model and the use of GPU for 3D rendering. Organization should be able to deploy it on their infrastructure (on premise) or on the cloud with the option for virtualization. Mobile clients for field data collection should be able to perform edits while disconnected from the network and sync their edits when ready. Users should be able to view cadastral data at any historical moment in time both in 2D and 3D. The paper describes the requirements and the cutting-edge technology to support it.

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