

From Stovepipes to Eco Systems: Making Wireless Cities Programmable

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The "classical" model of smart cities largely relies on stovepipe applications, with sensors feeding one application such as traffic management, often with very different interfaces for different cities. Open Data often means historic data dumps. This makes application development one-offs, with little ability to re-use code and apps across cities. This may cause application developers to focus on a few large cities. To leverage resources better and to lower the bar for developers of all skill and resource levels, we need to construct modular wireless cities that make sensor and actuators available via simple and standard APIs, independent of their wireless connectivity, enhanced with the ability to discover city sensors and data sources based on need, privileges and privacy considerations. As part of the SECE project, we are developing architectures and programming models that accommodate diverse and unanticipated applications.