

# State & Local Governments Innovate with Data

**As agencies deal with an abundance of generated data, they're adopting new tools and strategies to gain actionable insights and deliver better citizen services.**

**D**ata is being generated from everywhere — from mobile devices and cloud-based software to IoT sensors and smart home appliances. Data created at the edge is only growing, and organizations are adopting technologies like 5G and artificial intelligence to turn that data into decisions and actions.

At a recent FedInsider [webinar](#), two state government leaders joined an industry expert to discuss how they're leveraging emerging technologies and new data sources to improve citizen services.

The following are some of the most important aspects of those efforts.

## The Great Data Wave

The Commonwealth of Virginia, with its 64 executive branch agencies, 133 localities and over 2,400 operational data systems in production, is generating an "incalculable" amount of data, according to Carlos Rivero, the state's chief data officer.

"Those data systems cover the full spectrum of all the different business domains that you can think of," Rivero said. "As a result, we're really looking at how we get participation in the larger conversation about data governance and data use."

While the technology for managing data is important, Rivero said bringing

people to the table to discuss data as an asset is of equal value. Data is a strategic asset, and we should be able to share it with each other to maximize the value of those data investments that we've had over the years," he added. "You can only really do that with conversations and building up relationships with your peers in this space."

The quantity of data will keep growing, but as long as key players are identified and relationships of trust are built, all organizations can contribute and benefit from the collection process. To ensure that happens, Virginia put a trust framework in place that brings all state parties together to facilitate the transfer of restricted-use data assets to organizations that can then utilize them for the right purposes.

## Managing Data at the Edge

Rob Silverberg, chief strategy and innovation officer for state and local government at Dell Technologies, said there's a greater need for edge computing and edge processing. As government agencies employ more monitoring tools, their need to generate data rapidly from video analytics and other data streams created at the edge of a network increases.

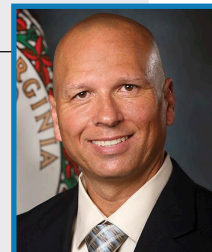
For instance, if a locality wants to monitor the number of people in a park as well as how that population is using the park, it might gain information

based on edge computing — analysis of closed circuit video from the park. Local officials would then have the capability to convert that video stream into data and transmit key information to where it can be analyzed — rather than transmitting the entire video. Doing it that way is much more efficient, Silverberg said.

## Featuring:

### ■ Carlos Rivero

Chief Data Officer,  
Commonwealth  
of Virginia



### ■ Jennifer Koester

Director, Enterprise  
Data Management,  
Dept. of Tech. & Info.,  
State of Delaware



### ■ Rob Silverberg

Chief Strategy &  
Innovation Officer,  
State & Local Gov.,  
Dell Technologies



"These days, with high-definition video and the proliferation of cameras, the need for edge processing is increasing dramatically," he said. Communities have the ability to aggregate critical information into dashboards that can provide real-time status reports and alerts. Both Delaware and Virginia have expressed interest in deploying this type of system in their regions.

### Implementing Data Initiatives to Tackle Data Challenges

Delaware is adopting cloud technology as a key data initiative, according to Jennifer Koester, director of enterprise data management for Delaware's Department of Technology and Information.

"Secure and appropriate integration of data in general is really crucial for us," Koester said. "Public data sharing and empowerment is also a priority." The state has an open data portal and is now automating updates to that portal. It also implemented a statewide data integration system, and is hoping citizens and agencies take advantage of available data soon.

As government agencies see a move from structured to unstructured data, they are challenged with how to manage so many different data types. "They don't all fit into a typical SQL database, so you need a new architecture," Silverberg said. "What we see is an evolution from a highly

structured strategy to a strategy that can handle structured and unstructured data."

Governments are adopting advanced tools like data lakes to ingest different types of information into the same data analytics platform. Silverberg said this is a good strategy because data lakes require less transformation.

Koester said Delaware acquired two new tools that incorporate cloud, to improve confidence in data collection and storage. "We as a state needed to invest in tech that would help us intuitively join disparate datasets," Koester said. "We needed a way to store non-relational data as a data lake... So that we can explore new and complex linkages."

### The Power of Data

With the implementation of a data integration system, Koester plans to use this platform to address large-scale social problems, like food insecurity, by analyzing the connection between hunger and high school dropout rates.

"We're able to provide policy recommendations to both the governor and agency leadership in a more comprehensive and insightful way than ever before," Koester said. "Instead of beginning an analysis with a limited insight, we're now able to really ask questions and have a predetermined guess of what we're going to find."

In Virginia, Rivero also has big plans for data-powered initiatives. He'd like to tackle overarching cross-agency issues like recidivism or the impact of substance abuse on his community. He's also looking at data impact on an individual level. "The most important thing for us is to look at how the government services we provide are actually translating into specific outcomes for our constituents," Rivero said.

Integrating individuals' data across multiple systems (using machine learning and analytics) provides insight into how citizens interact with government services. That makes it easier to identify any issues and fine-tune service delivery. He's looking at AI to "bring our focus to those decisions that need to be made, and which are going to have the most impact."

To achieve these data management goals, Silverberg has learned to approach data analytics as a process and not a tool. He suggests first implementing proper data governance across all sources of data, then using tools to catalog and manage data, and finally generating the requisite output, whether it's data visualizations or advanced machine learning algorithms. "If you're focused on the tool and getting that tool up and running, that's one piece of it. But it's not a good holistic approach to data analytics," Silverberg said. 

## FEDInsider

**Hosky Communications Inc.**

3811 Massachusetts Avenue, NW  
Washington, DC 20016

- (202) 237-0300
- [Info@FedInsider.com](mailto:Info@FedInsider.com)
- [FedInsider.com](http://FedInsider.com)
- [Facebook.com/FedInsiderNews](https://Facebook.com/FedInsiderNews)
- [Linkedin.com/company/FedInsider](https://Linkedin.com/company/FedInsider)
- [@FedInsider](https://Twitter.com/FedInsider)

## carahsoft.

**Carahsoft**

14993 Sunset Hills Road, Suite 100  
Reston, VA 20190

**Contact:** Erica Raymond

- (866) Dell-2-Go
- [DellTechnologies@Carahsoft.com](mailto:DellTechnologies@Carahsoft.com)
- [Carahsoft.com/vendors/dell](https://Carahsoft.com/vendors/dell)
- [Facebook.com/Carahsoft](https://Facebook.com/Carahsoft)
- [Linkedin.com/company/Carahsoft](https://Linkedin.com/company/Carahsoft)
- [@Carahsoft](https://Twitter.com/Carahsoft)

© 2021 Hosky Communications, Inc. All rights reserved. FedInsider and the FedInsider logo, are trademarks or registered trademarks of Hosky Communications or its subsidiaries or affiliated companies in the United States and other countries. All other marks are the property of their respective owners.

**DELL**Technologies

MISSION BRIEF | **FEDINSIDER.COM**