Transforming data into insight

Useful and actionable solutions to your community’s needs are within reach.

Within the next few years, there will be 180x more bytes of digital data in existence than stars in the observable universe.¹

Information overload is here, and it can be paralyzing for any organization to manage. So, when communities call on government organizations to turn information into action, government must focus on the most effective use of data for the public — the ability to make small, but critical, improvements in community services.

- Faster response times during an emergency
- Optimized delivery of services by resource-restrained teams
- Granular fine-tuning of roadway traffic and other transportation flows
- Meaningful insights into the opioid epidemic and climate crises
- Modernized use and storage of digital evidence in courtroom procedures
- Streamlined coordination between state, local, and federal agencies

Unlocking these benefits demands a strategy that looks past merely collecting additional data. Organizations will need to pair emerging technologies like AI with new tools on the ground to create dynamic, dependable supply chains that turn datapoints into insights that are useful and actionable by agencies and communities.

Learn more at www.lenovo.com/government.

¹ statista, “Volume of data/information created, captured, copied, and consumed worldwide from 2010 to 2025,” March 18, 2022
Information in action: success stories

Pick nearly any service or community challenge, and chances are government organizations are deploying Big Data to open up new opportunities. It might be getting to an answer faster or delivering a service with greater efficiency. The common link is always the innovative use of information.

Public Safety
The rise of NextGen 911 offers an example of agency coordination and cooperation, revealing how a foundational service can be fundamentally transformed by technology.

- Better GIS tools provide more accurate location mapping, enabling first responders to reach the scene faster.
- First responders arrive with more information on both the location and the incident, sometimes including building plans. This enables better real-time decision-making.
- Responders also bring new technology to the scene, including body cameras and mobile devices. This allows incident information to be quickly shared to improve response as well as being stored in the interests of transparency and accountability.

Public Health
As communities cope with multifaceted challenges like the opioid epidemic, information technology can help with collaboration for long-term solutions.

- Powerful analytics can combine historical data with demographic inputs to help decision-makers better predict at-risk populations.
- Broad information sharing between public safety and public health agencies can help ensure affected individuals receive the appropriate intervention that addresses root causes.
- These two functions combined can help agencies develop community strategies for educating the public about the challenge and efforts to solve it. State agencies in Kentucky are using an ESRI tool to do exactly that.

Public Justice
Reliable data transfer and storage is a must for courthouses, corrections facilities, and rehab centers.

- Modern courtrooms require high-performance devices capable of handling the increased use of digital evidence, especially video.
- Fast, up-to-date, secure devices and networking are becoming crucial for capturing testimony and communications from secured facilities.

Public Life
The emergence of “smart cities” gives government organizations an opportunity to partner with business leaders to create public spaces that inspire confidence, delight, and private investment. These aren't just smart communities, but adaptive laboratories for creating new ways of living, working, and moving between the two.

Projects like Google Sidewalks are helping cities like Toronto collect more data about how people use city services and resources. This information is then used for traffic planning and scheduling public works.

Similar data-driven approaches are also used to help speed business-facing services like permitting, enabling developers to bring new projects to market faster and with greater transparency. A subset of this information can be aligned to open standards and made available to the public, inspiring innovative, citizen-led efforts like LA's GeoHub.

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Step by step: the Big Data supply chain

Moving from terabytes of data to a single task is hard work. Along the way, it requires organizations to invest heavily in new systems and skills, as well as continued efforts to maximize the efficacy of existing infrastructure.

Collect
Whether it’s a web form or sensor, data has to start somewhere. These inputs are gathered and stored, awaiting the next step.

- IoT sensors
- Agency forms/users
- Citizen self-service

Collate
Data hygiene is often an agency’s biggest obstacle. How do you turn raw information into a usable asset?

- Network/cloud storage
- Relational databases/data lakes
- Data hygiene applications

Crunch
Once a datapoint is properly formatted, it can be analyzed by an application. Sometimes these are machine-based AI, but just as frequently an agency expert does the work.

- Cloud compute resources
- Local workstations

Create
At the end of the process, those datapoints are now actionable. This is where service development and delivery steps in. You started with information, and created insight and opportunity.

- Agency experts
- Cross-agency collaborations
- Community partnerships

The critical link: workstation power

Many of the listed examples (and countless more) are centered on GIS data as both input and output. It’s a powerful data layer that might not seem exceptionally exciting, but plays an outsized role in service delivery. Simply put — if an agency can’t find a location, it makes nearly everything else impossible.

Along with GIS applications, agencies increasingly rely on other compute-heavy, ISV-validated software. From designing roads to rendering digital media, these high-profile workloads demand high-powered compute solutions. This means workstations.

But as agency missions and workspaces evolve, traditional workstation choices can’t always keep up. Decision-makers need to understand new features and form factors and ensure they’re precisely matching the right tool to the task. Getting this wrong can impact the entire information supply chain, and further complicate the already complex challenges of turning data into decision.

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Lenovo recommends Windows 11 Pro for business
How to choose

By the numbers: performance specs

Public safety
Application developers will provide the essential baseline for workstation choice. Without that certification, a tool won’t run reliably once deployed. These certifications are typically driven by CPU/GPU performance, but are not completely processor-dependent. The speed at which the processor communicates with other components is also essential.

Beyond the numbers: ports and portability
Traditional tower workstations are great for deskbound engineers and experts. But putting more power in the hands of users in the field can reduce cycles and produce better results. Why shouldn’t an engineer be able to adjust thinking on the spot? Why wouldn’t you want analysts working as close as possible to the problem they’re trying to understand?

Mobile workstations aren’t new, but the performance gap between traditional and portable form factors has narrowed as of late. This means delivering productivity exactly where and when it’s needed, reducing cycle time, and getting to solutions faster.

The secret workstation weapon: durability
When agencies invest in endpoint hardware, they typically don’t buy for “edge cases.” They look for a solution that meets the needs of a “typical user,” however that gets defined. And while this serves most agency workloads well, workstation needs stand apart and distinct.

With the focus on working with a Big Data supply chain in the field and “at the edge,” use case needs get even more specialized.

This is because beyond the applications being run, workstation workloads are typically fundamental to a particular service. This means high-profile work, often done by high-profile talent, often working outside the agency. When their endpoint fails, the dollar and productivity costs can soar. So, while reliability is always important for hardware, it’s exceptionally important for workstations.

Learn more at www.lenovo.com/government.

Government customers trust solutions like the Lenovo ThinkStation P360 Tiny Workstation with Intel vPro® with 12th Gen Intel® Core™ i9 processor and Windows 11 Pro 64.

Lenovo recommends Windows 11 Pro for business
The right tool for the task: the Big Data supply chain

No matter the high-profile workload, the Lenovo ThinkStation portfolio offers a full range of powerful ISV-certified workstation options. From traditional towers to ultraportable ThinkPad mobile workhorses, Lenovo devices enable you to bring unprecedented Intel® performance to your most important missions. Collect, collate, crunch, create — Lenovo makes it all easier.

Superior Choice
A full range of workstation options ensures you can customize a solution that fits your strategy. You can even fine-tune the compute power you wish to dedicate to a task with the Lenovo Performance Tuner. Every ThinkPad and ThinkStation workstation brings ISV-certified performance to the mission.

Proven Durability
We continue to lead the industry in our commitment to robust, MIL-SPEC durability. This means our workstations let your users do hard work in the toughest of environments.

Superior Choice
Lenovo Secured-core workstations running Windows 11 Pro offer a full suite of advanced security safeguards. Plus, you get ThinkShield protection — hardware, software, services, and processes for end-to-end defense.

Government Expertise
Lenovo is the trusted technology partner of over 900 U.S. state and local agencies, and 70 military and civilian federal agencies. Along the way, we’ve learned a lot about what it takes to turn the best technology into a transformational advantage.

Complete Service Options
Protect your investment with a full portfolio of service options, from on-site repair to accidental damage protection. We can help you design a plan that keeps your most critical assets fully operational.

From Big Data to infinite possibility — let’s get started.
Big Data brings big opportunities. Lenovo can help you better understand both and plot a sure path forward.

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