DELL Technologies

Dell Validated Design for
Unified Operations Center

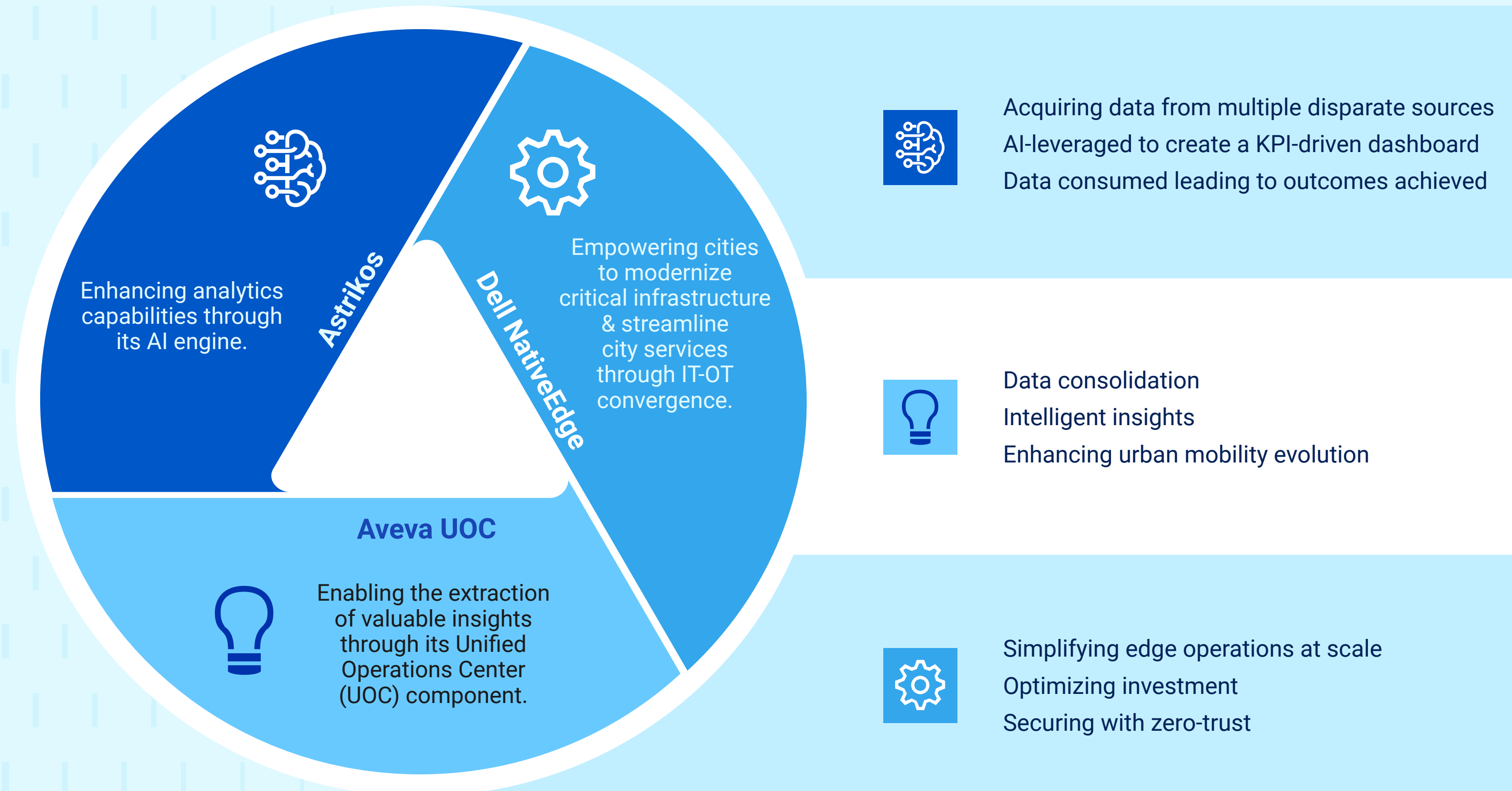Building the digital foundation for smart city operations.

Solution Highlights

- Unified interface to give comprehensive insights

- End-to-end security of public data

- AI-driven insights to provide actionable outcomes

- Pre-validated solution templates to save time and resources while deploying the solution

- Seamless integration of critical infrastructure through IT, OT and IoT convergence

In contemporary urban environments, cutting-edge digital solutions are imperative for providing outstanding citizen experiences, establishing resilient safety protocols, and cultivating cities that are resilient, sustainable, and poised for future growth.

Understanding these key tenants have helped cities build the ability to face challenges deriving from the existing state of a fragmented and siloed landscape of departments and technologies across municipal systems. In this endeavor, city leaders desire technologies to be secure, adaptable and scalable by design, whilst creating a data aggregation environment which interweaves data generated into a cohesive repository with real-time insights. While these barriers seem to be a significant impediment to the execution and success of smart city initiatives, the new Dell Validated Design for Unified Operations Center, in collaboration with Aveva, provides cities with an innovative digitally transformative path to manage these obstacles effectively.

Building blocks of DVD UOC

Astrikos
Enhancing analytics capabilities through its AI engine.

Dell NativeEdge
Empowering cities to modernize critical infrastructure & streamline city services through IT-OT convergence.

Aveva UOC
Enabling the extraction of valuable insights through its Unified Operations Center (UOC) component.

- Acquiring data from multiple disparate sources
- AI-leveraged to create a KPI-driven dashboard
- Data consumed leading to outcomes achieved

- Data consolidation
- Intelligent insights
- Enhancing urban mobility evolution

- Simplifying edge operations at scale
- Optimizing investment
- Securing with zero-trust

Driving the transformation of smart cities through technology

The Dell Validated Design for Unified Operations Center provides a holistic approach to manage various domains within digital cities, by delivering comprehensive solutions. Here are a few illustrative examples of its transformative

Integrated multi-site building management operations

Monitoring predictable aspects of major building systems, such as HVAC, boilers/chillers, and elevators to effectively reduce maintenance costs.

Urban mobility

Improve decision-making by increasing situational awareness to improve traffic flow and emergency services response time.
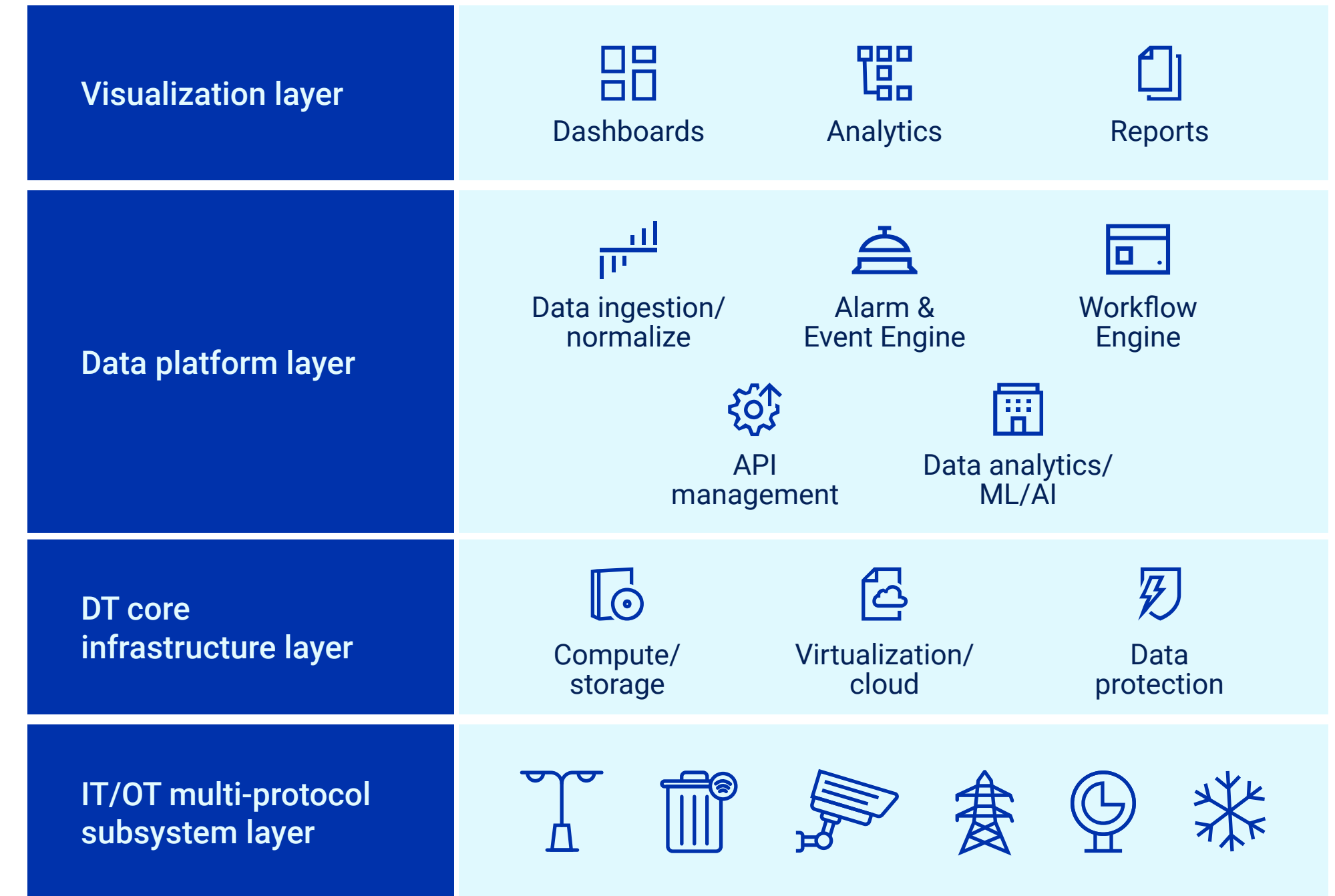
Modernizing wastewater treatment

Standardizing water treatment processes with modern digital controller technologies for secure & automated maintenance.

Tailored unified platform architecture for city-specific use cases

The solution leverages the best-in-class infrastructure and cloud foundation of Dell Technologies.

Visualization layer	Dashboards	Analytics	Reports
Data platform layer	Data ingestion/ normalize, Alarm & Event Engine, Workflow Engine, API management, Data analytics/ ML/AI		
DT core infrastructure layer	Compute/ storage	Virtualization/ cloud	Data protection
IT/OT multi-protocol subsystem layer			

Realizing Digital Cities goals through solution outcomes

The Dell Validated Design for Unified Operations Center is meticulously crafted to equip the cities of tomorrow with a plethora of advantages, including:

- Delivering an integrated perspective of diverse city systems, facilitating enhancements within individual subsystems
- Supporting cities in expanding capacity and effectively managing external events, such as weather incidents
- Enabling real-time insights into city systems like transportation, sustainability, and utilities
- Facilitating city infrastructure planning based on the historical data
- Equipping cities to grow in concert with community demands
- Empowering cities with ESG reporting capabilities that deliver insights from the current state as well as impact achieved from sustainable technology enhancements
- Reaching green objectives by reducing energy, water, and waste production/ consumption per capita

Learn more about Dell Digital Cities

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