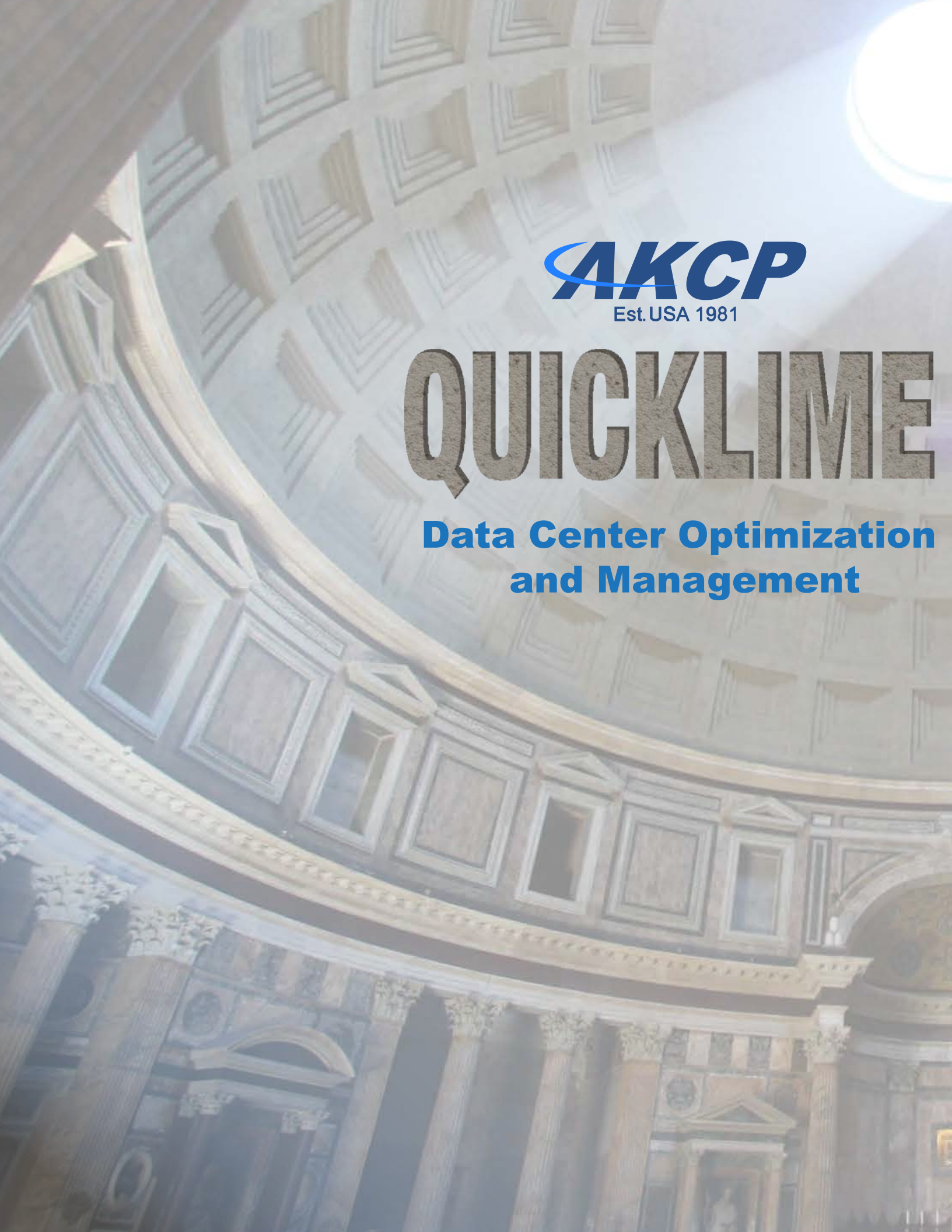

AKCP
Est. USA 1981
QUICKLIME
Data Center Optimization
and Management

Quicklime - High Availability Monitoring

Quicklime is a powerful and versatile centralized monitoring and management platform for complex infrastructures. Designed for mission-critical environments, it provides comprehensive modules with AI powered analytics for Data Center Infrastructure Management (DCIM), Video Surveillance and sensorCFD.

Realtime Visibility

Construct a Digital Twin of your data center with realtime insights for any assets at anytime. Connect sensors with assets for holistic view.

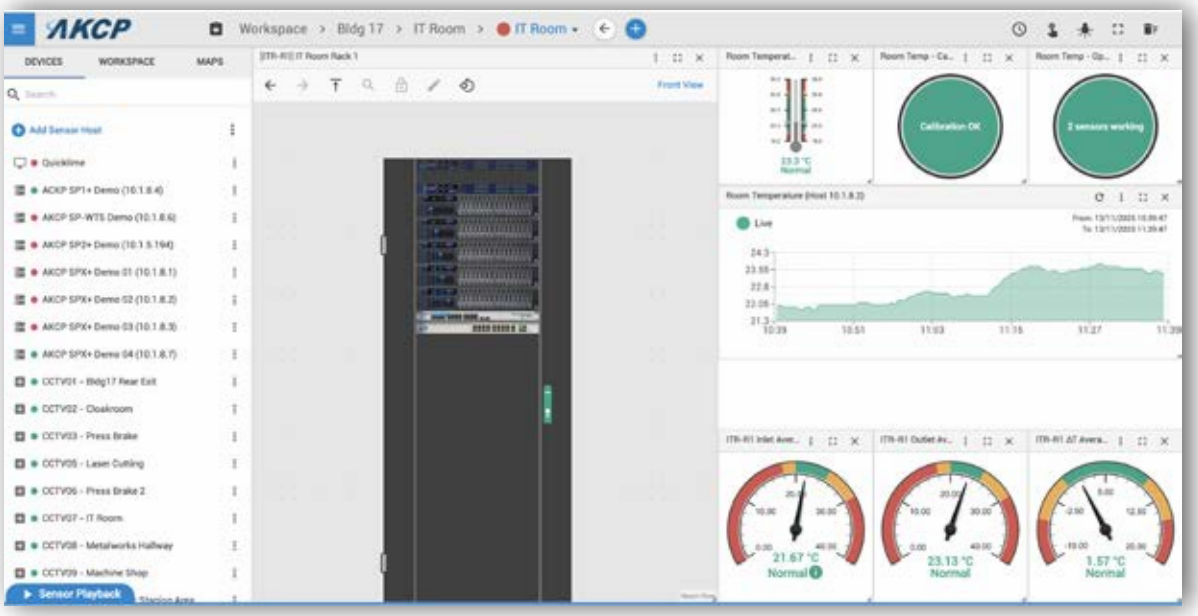
Reduced Energy Costs

sensorCFD with AI Analytics produce an energy report with an actual cost for wasted energy and advice how to optimize your facility.

Identify Stranded Capacity

Ensure maximum use of cooling capacity by comparing cooling capacity with IT loads and identify where stranded capacity can be released.

Create customized desktops that drill down from a data center view to an individual rack, or asset in a few clicks. Sensor data feeds into assets for granular insights into each assets power, environmental, security or network status. Integration with third party sensors via popular protocols such as Modus, Bacnet, SNMP andMQTT.

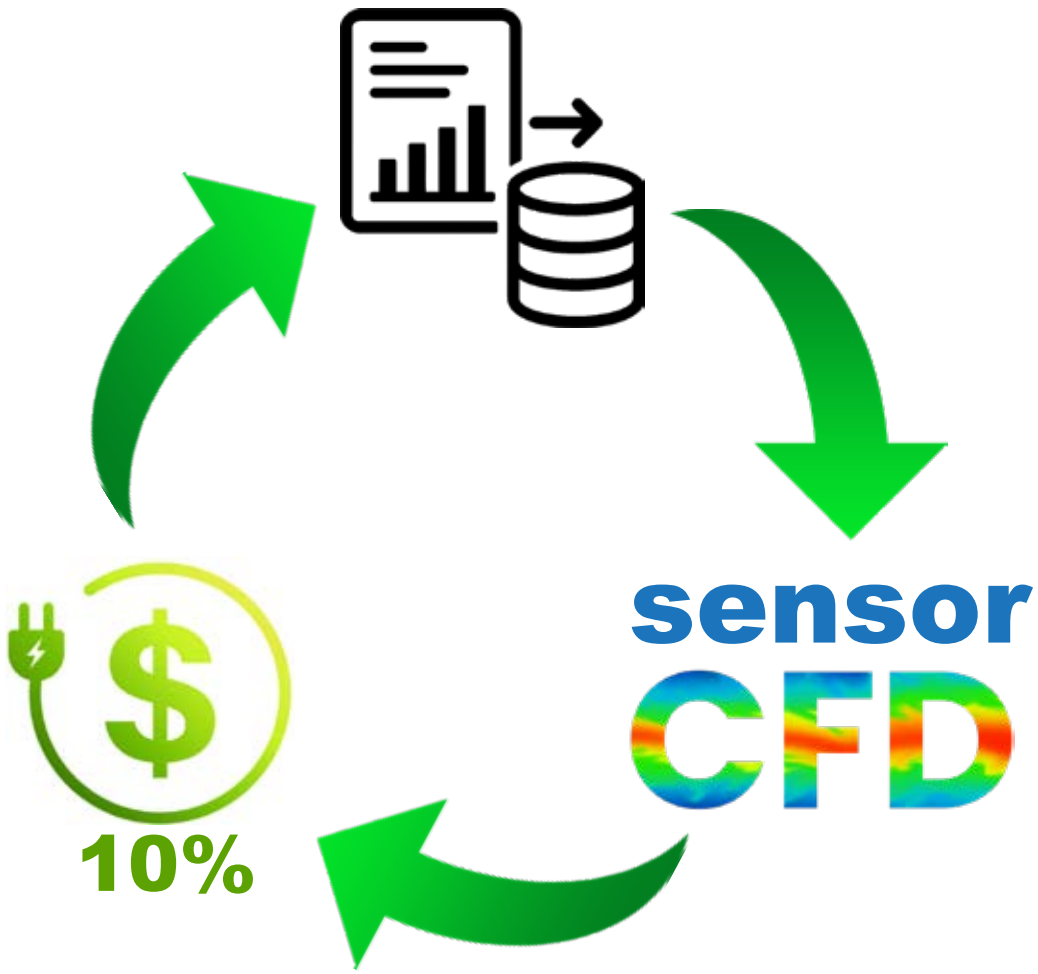


Data Center Energy Optimization

Data center optimization focuses on improving the efficiency, performance, and sustainability of Data Center Facilities. Typical strategies involve optimizing airflow through Computational Fluid Dynamics (CFD) analysis, which simulates air movement, temperature distribution, and heat transfer within the data center to identify hotspots, inefficiencies, and optimal layouts for racks and vents.

CFD models are used in the design phase to test various configurations such as adjusting aisle containment, fan speeds, or placement of perforated floor tiles. Quicklime incorporates CFD tools that can be used at the design stage, but more importantly, during operation. sensorCFD is a sensor backed CFD analysis for accurate, near real-time optimization.

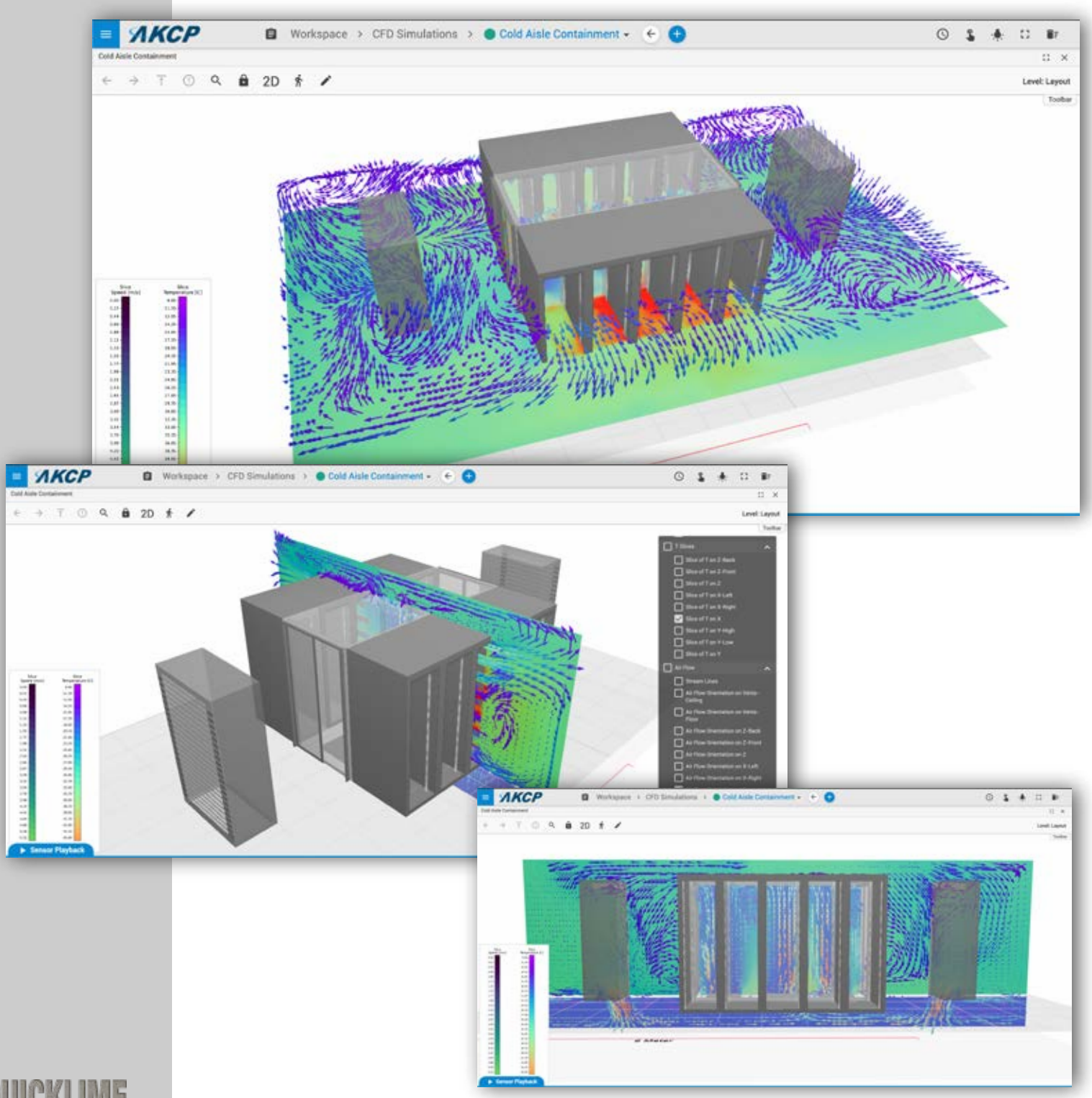
sensorCFD is an iterative process, where sensor data feeds into the CFD model, the results are then analyzed using advanced AI tools, which produces recommendations for improvements. These are then implemented and validated through further simulations. Up to 10% energy reductions can be acheived through this process.



Data Center Energy Optimization

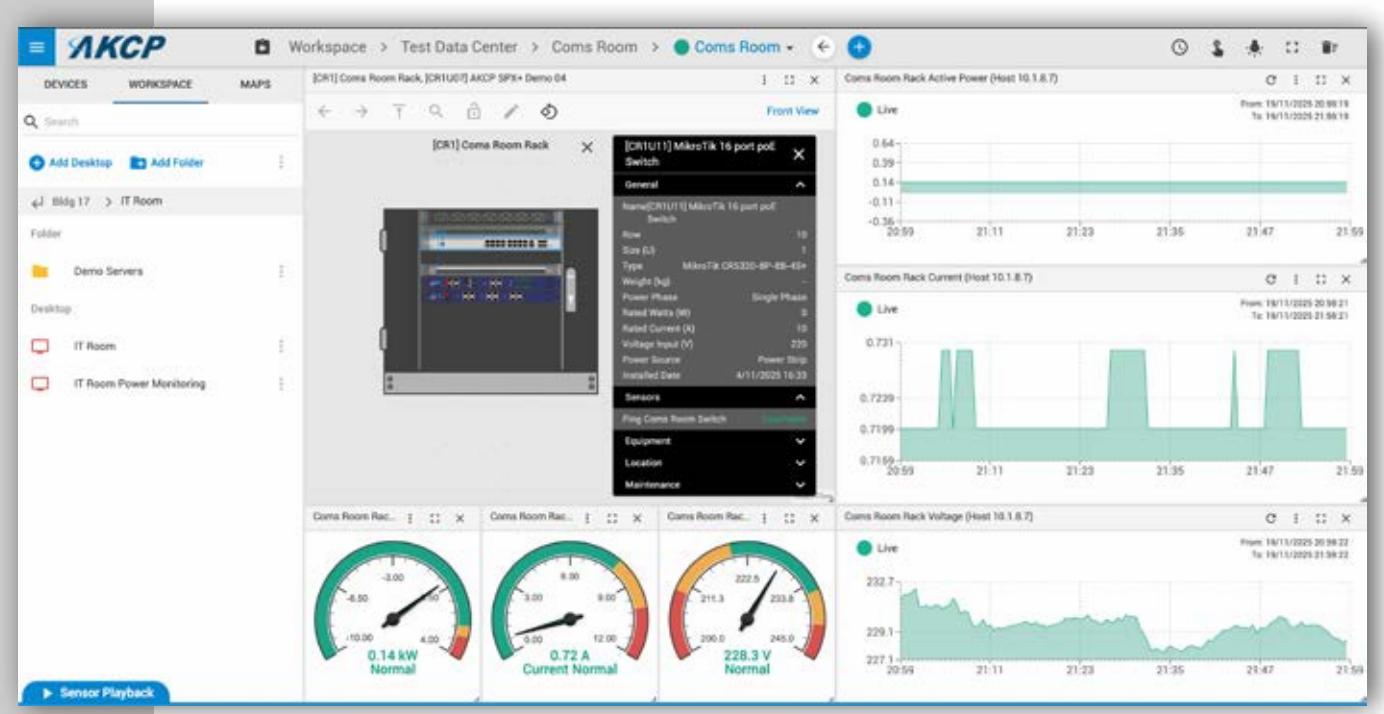
sensorCFD creates the CFD analysis based on live sensor data. Connecting the sensor data and asset mapping of Quicklime it generates a CFD analysis of your facility. The results are fed into an AI analytical tool that produces a report with suggested problem areas and improvements. An Energy report is also produced that calculates estimated energy savings and a Coefficient of Performance (COP) of your Data Center.

It is here where the true value of Quicklime can be found, where energy is saved and the software becomes more than simply a monitoring and management tool, but an asset that provides a return on investment.

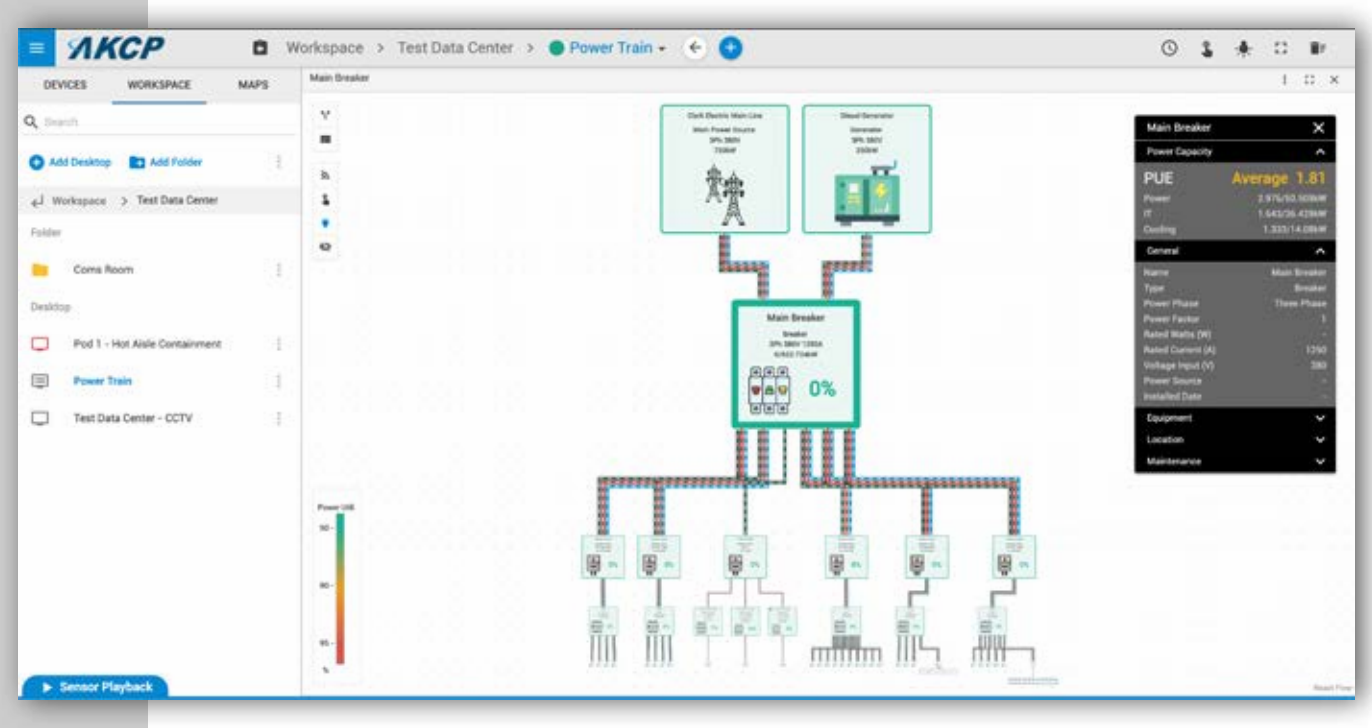


Data Center Infrastructure Management (DCIM)

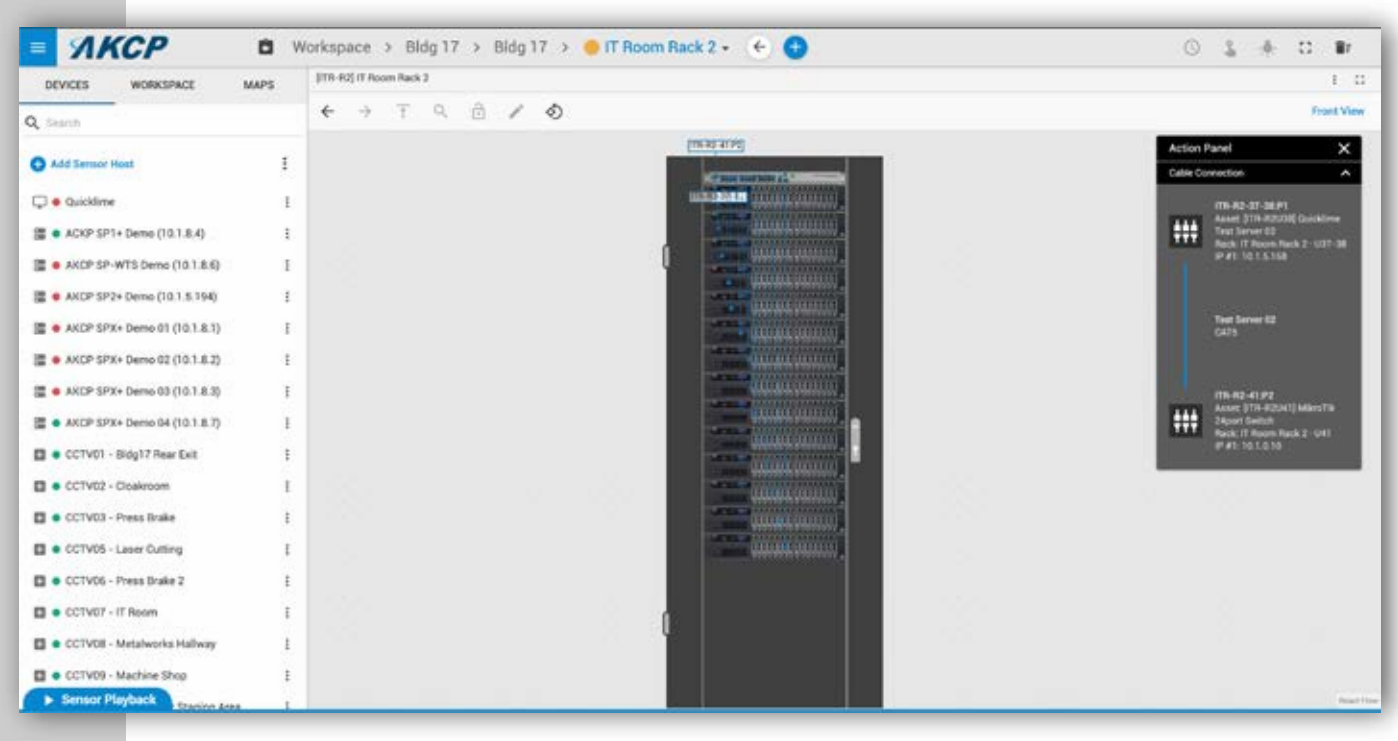
Asset management. At the heart of the DCIM are all of the appliances and equipment that make up your infrastructure. Map out your data center and locate the assets. Connect the assets with sensors to monitor the environmental, power or security parameters of those assets.



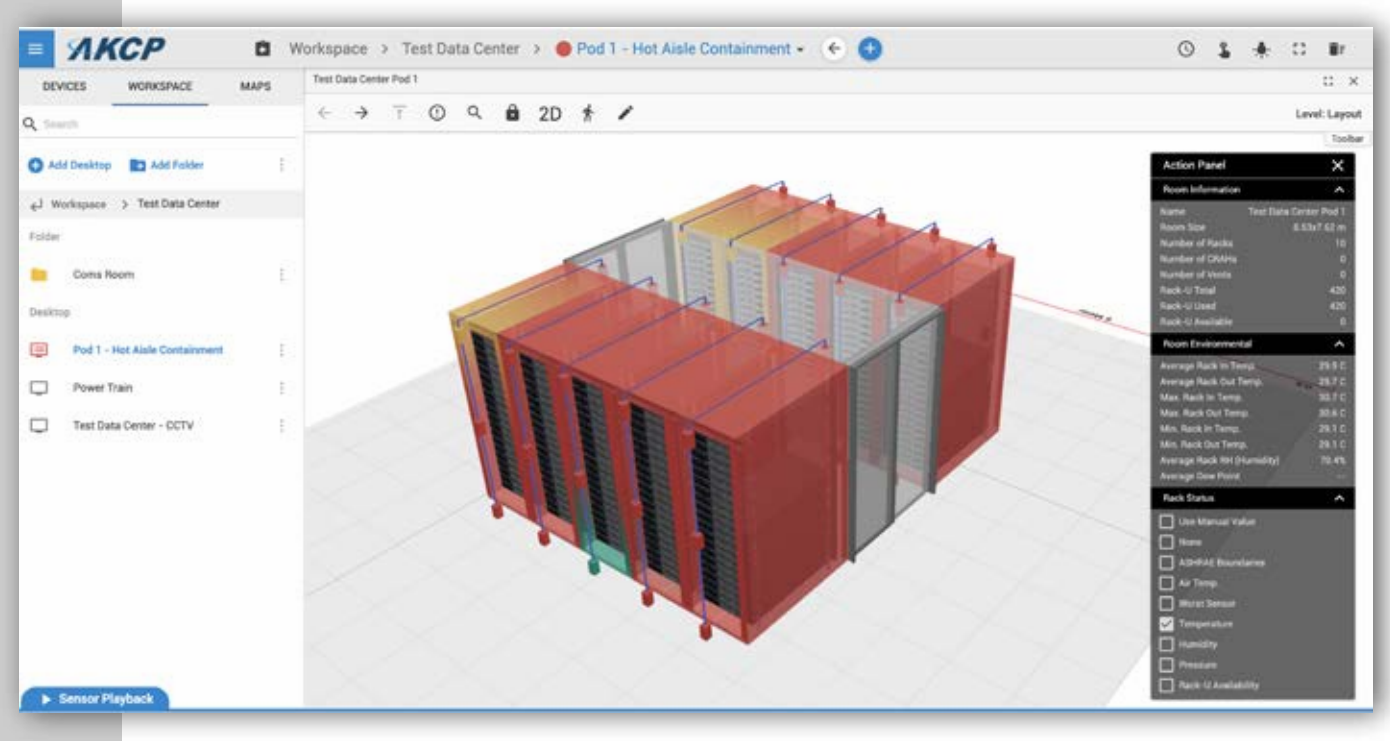
Power Train Mapping. Monitor your facilities power, PUE, loads and power utilization. Balance loads and plan Data Center expansion. Power data comes from AKCP power meters, third party power meters or intelligent PDU's.



Network Cable Mapping. Connect assets to their relevant network switches and ports. Generate cable schedules with source and termination points, lengths and labels. Manage cable pathways and determine run lengths.



3D Data Center visualization. Draw your data center in 3D, add assets to racks and connect assets with sensor data.

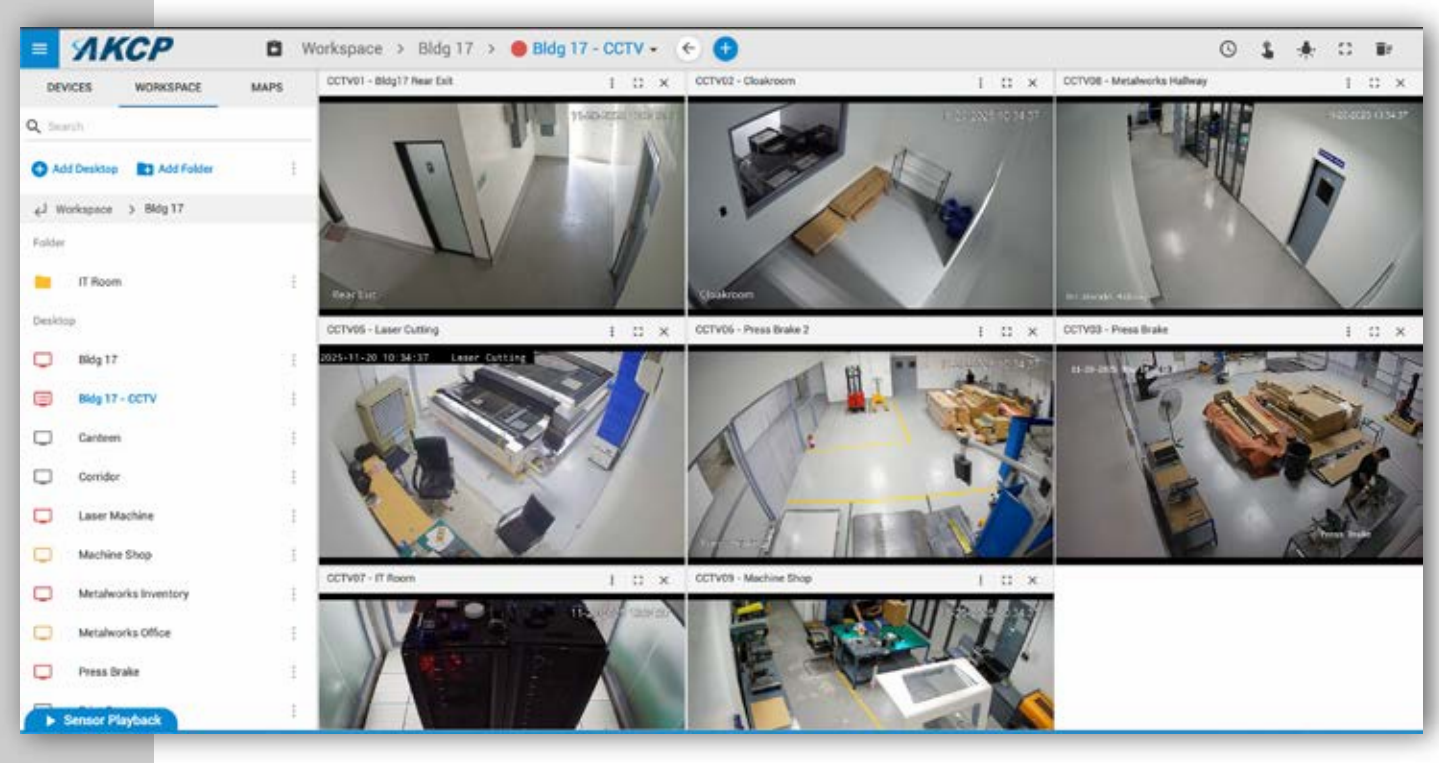


Video Analytics

Video feeds in Quicklime can be handled like any other sensor with notifications based on sensor events.

Utilize AI prompting to create video analytical sensors that watch for specific events such as employees not wearing protective gear, crossing into unauthorized areas or checking for hazards.

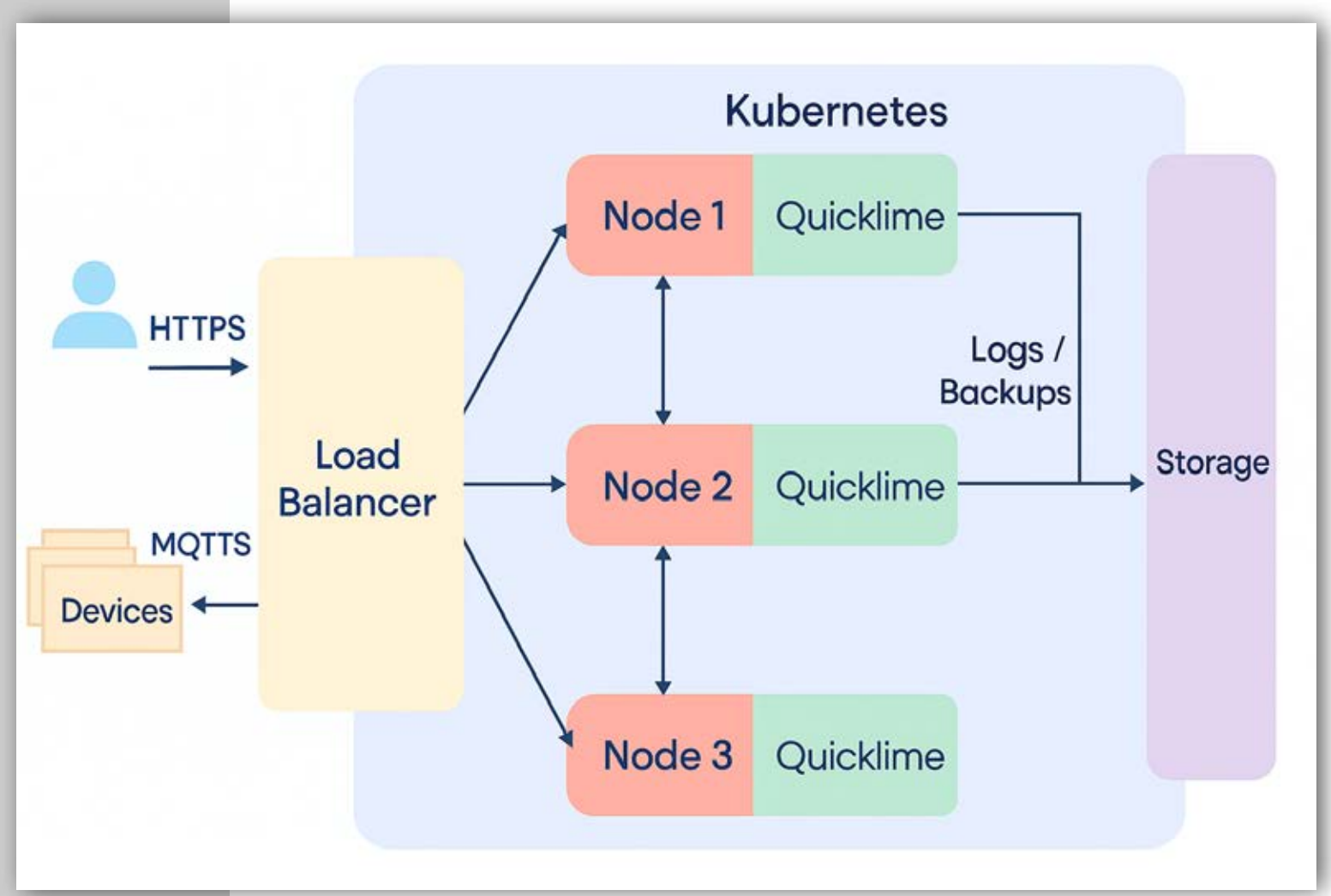
Use AI Prompting to review recorded video for specific events and synchronize events with sensor data.



Kubernetes Linux Cluster

Our scaleable, fault tolerant architecture is designed for large-scale deployments with thousands of sensors. This configuration ensures uptime, redundancy, and seamless failover, making it the best choice for enterprise and data center operations. Built on Kubernetes, it supports high availability and scalability, allowing you to expand the cluster as your monitoring needs grow. Services automatically balance and scale across nodes, ensuring reliability, fault tolerance, and performance under heavy sensor loads.

Quicklime can be deployed either on-premise or in a cloud environment, giving you flexibility to match your IT strategy and resilience requirements. For true High Availability and fault tolerance the cluster does not need to be within the same facility. The individual servers can be distributed over a wider geographical area. So long as latency is below 5ms there will be no issues with the synchronous replication of data between Kafka and Postgres. Typically this means, with a dedicated fiber line, you could have the facilities up to 300km apart.



Ready For The Next Step?

Interested to know more about how Quicklime can help manage your Data Center and save you energy costs? Schedule a demo with us today!