



PLEXUS
INNOVATION

CASE STUDY – Sheltered Housing benefits from GUARDIAN® During Covid 19 Lockdown

Background and Opportunity



Turnover
£67 m

Total Assets
£182m

- Following successful evaluation of GUARDIAN® in Q1 2019, this large, NE based, housing group chose to implement the technology across their full portfolio of sheltered housing units. The customer wanted to utilise the data collected by GUARDIAN® to understand usage profile of each asset. Their goal is to provide an enhanced Legionnaire compliance management, reduce operating costs and remove the risk of human error.
- The basic measurement and compliance service provided by GUARDIAN® technology is price competitive with manual measurement methods. The added value gained from real time data analysis, however, will deliver a significant competitive advantage via provision a materially improved service to residents, along with reduced operational costs.
- GUARDIAN® was installed across all facilities in Q3 2019 and was providing valuable data and insights to enable a high quality of compliance management within the organisation. Tenants were no longer required to be inconvenienced by visits for manual measurement.
- When lockdown was imposed as a result of Covid 19 outbreak, the organisation suffered no interruption of compliance management as GUARDIAN® continued to supply valuable insights and maintain temperature measurement regime.
- Additionally throughout lockdown GUARDIAN® has enabled flushing regimes to be tracked and managed, alerted to significant change of user profiles and highlighted critical maintenance issues, ensuring that rapid resolution is possible by the organisation.

Old Capability

- Engineer required to manually measure water temperatures on monthly basis.
- Compliance management would have been interrupted during Covid 19 lockdown as no access to flats was allowed.
- No visibility of performance, condition and actual use profile of hot and cold water systems.
- No possibility of verifying whether flushing is carried out or not.
- Human intervention can be prone to error.

New Capability via Plexus Innovation

- GUARDIAN® digital remote measurement devices installed and operate automatically in real time.
- Data fed remotely to cloud based platform. Data stored electronically and alerts can be user configured.
- Visibility and profiling of water system performance and usage, along with tracking of flushing regimes.
- Human intervention for measurement and reporting is removed, along with risk of error and missed visits.
- Real time compliance tracking. Over 500,000 measurements per year.

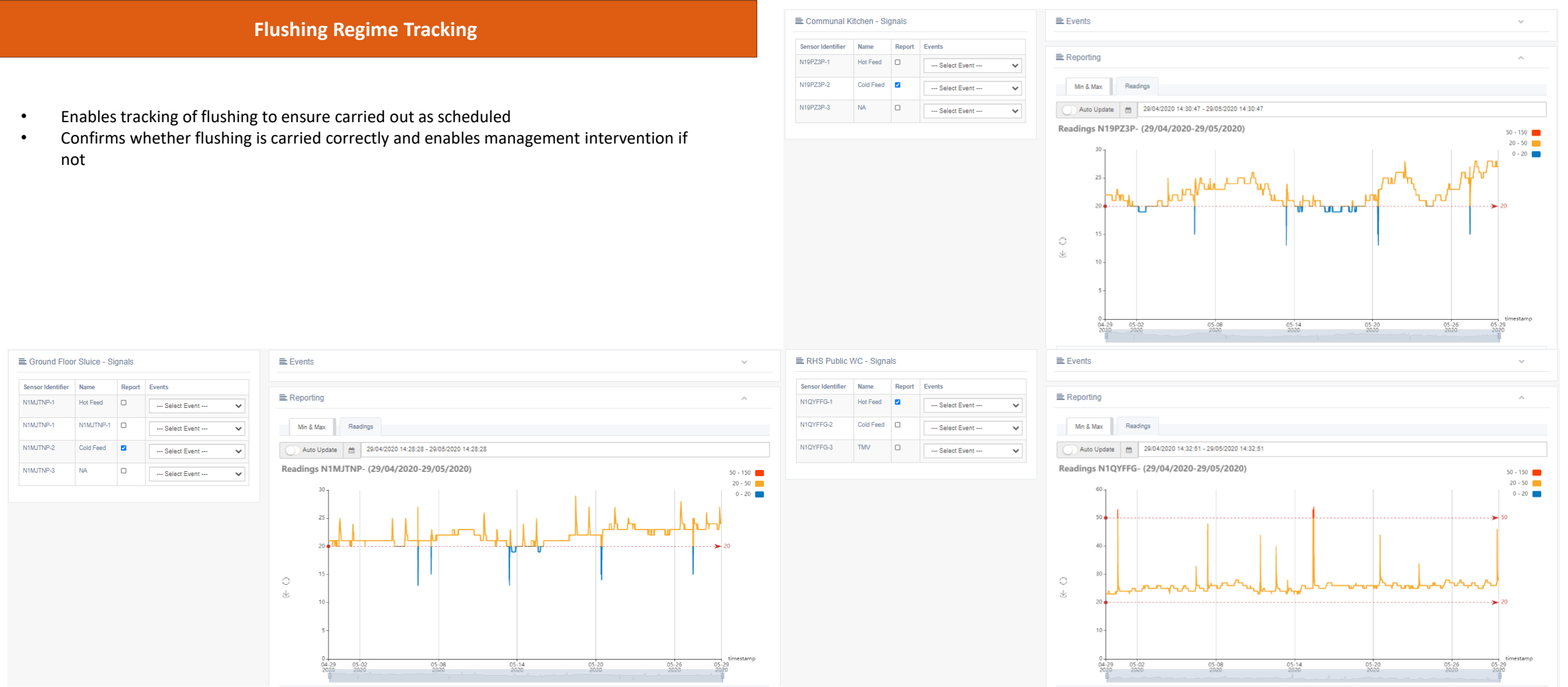
Outcomes

- Legionnaire compliance visits cost reduced by 67%.
- Uninterrupted Compliance management throughout Covid 19 lockdown..
- Flushing regimes accurately tracked, enabling missed events to be rapidly identified and managed.
- Identified several critical boiler issues, enabling informed maintenance decisions and effective resolution .
- Enabled effective cross function coordination via identification of significant changes to user profile.

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Flushing Regime Tracking

- Enables tracking of flushing to ensure carried out as scheduled
- Confirms whether flushing is carried correctly and enables management intervention if not



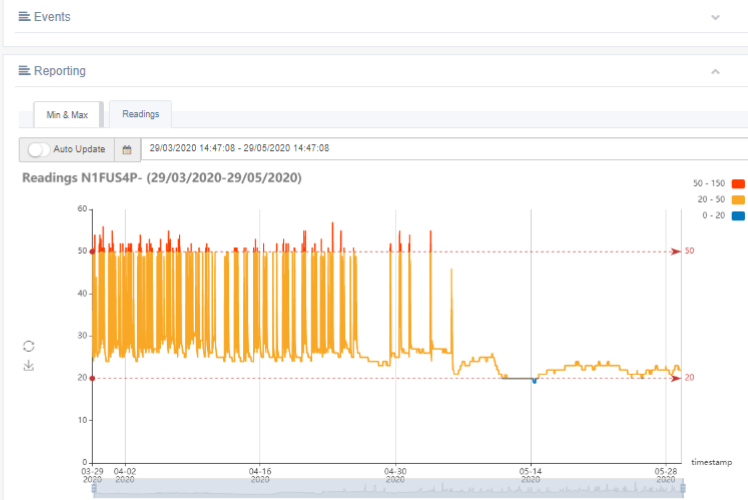
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Significant Changes to User Profile

- Enables early understanding of changes to tenant circumstances
- Enables compliance management intervention if required

Flat 32 Kitchen - Signals

Sensor Identifier	Name	Report	Events
N1FUS4P-1	Hot Feed	<input checked="" type="checkbox"/>	--- Select Event ---
N1FUS4P-2	Cold Feed	<input type="checkbox"/>	--- Select Event ---
N1FUS4P-3	NA	<input type="checkbox"/>	--- Select Event ---
N1FUS4P-3	N1FUS4P-3	<input type="checkbox"/>	--- Select Event ---



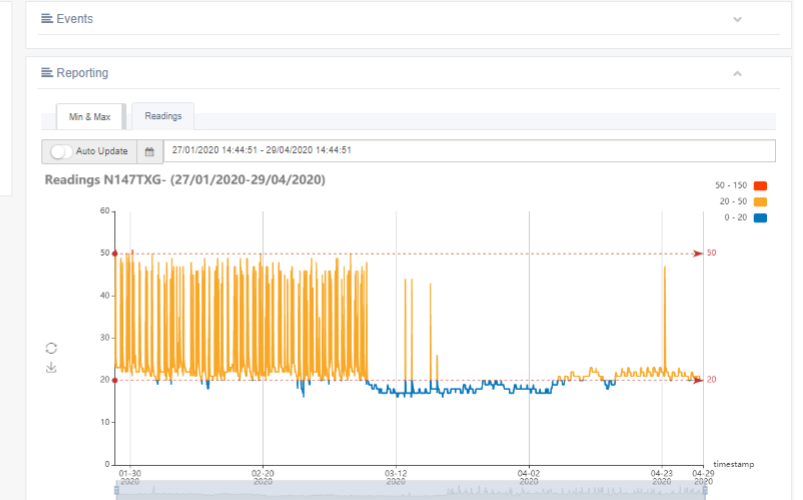
Flat 23 Kitchen - Signals

Sensor Identifier	Name	Report	Events
N1QTXAB-1	Hot Feed	<input checked="" type="checkbox"/>	--- Select Event ---
N1QTXAB-1	N1QTXAB-1	<input checked="" type="checkbox"/>	--- Select Event ---
N1QTXAB-2	Cold Feed	<input type="checkbox"/>	--- Select Event ---
N1QTXAB-3	NA	<input type="checkbox"/>	--- Select Event ---



Flat 8 Kitchen - Signals

Sensor Identifier	Name	Report	Events
N147TXG-1	Hot Feed	<input checked="" type="checkbox"/>	--- Select Event ---
N147TXG-2	Cold Feed	<input type="checkbox"/>	--- Select Event ---
N147TXG-3	NA	<input type="checkbox"/>	--- Select Event ---

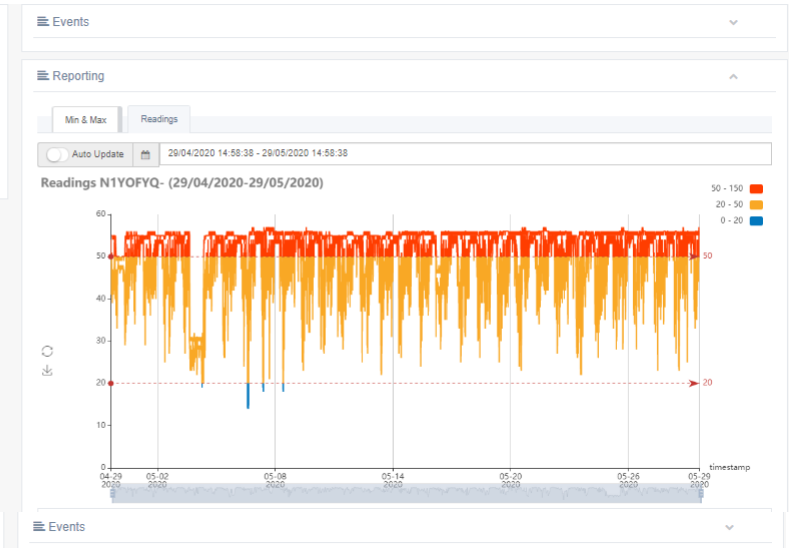


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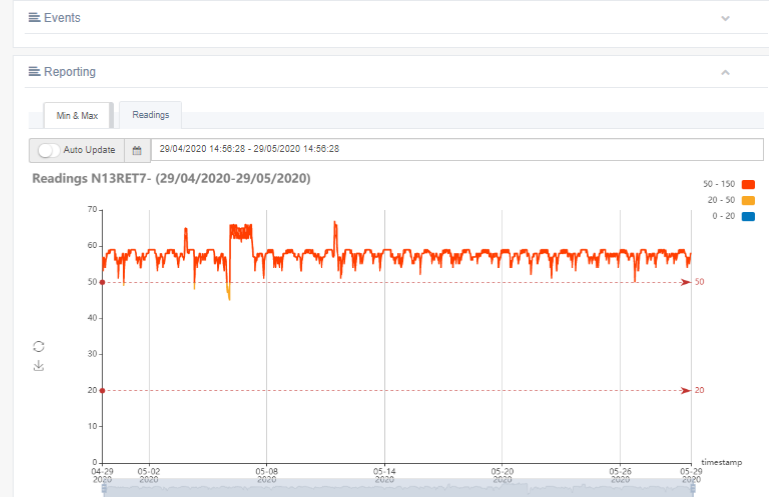
Maintenance and Operational Issues Identified

- Provides early indication of potential issue to be resolved
- Enables faults and maintenance to be tracked and documented
- Issues highlighted include potential undersized boiler, faulty thermostat and multiple losses of hot water feed

Plant Room - Signals			
Sensor Identifier	Name	Report	Events
N1YOFYQ-1	Hot Feed	<input type="checkbox"/>	--- Select Event ---
N1YOFYQ-2	Ambient	<input type="checkbox"/>	--- Select Event ---
N1YOFYQ-3	Hot Return	<input checked="" type="checkbox"/>	--- Select Event ---



HWS 01 (L) - Signals			
Sensor Identifier	Name	Report	Events
N13RET7-1	Hot Feed	<input checked="" type="checkbox"/>	--- Select Event ---
N13RET7-2	NA	<input type="checkbox"/>	--- Select Event ---
N13RET7-3	Hot Return	<input type="checkbox"/>	--- Select Event ---



HWS (R) - Signals			
Sensor Identifier	Name	Report	Events
N16PQTZ-1	Hot Feed	<input checked="" type="checkbox"/>	--- Select Event ---
N16PQTZ-2	NA	<input type="checkbox"/>	--- Select Event ---
N16PQTZ-3	Hot Return	<input type="checkbox"/>	--- Select Event ---

