

## Exhibit 6

### GSA Smart and Sustainable Buildings

[[[Note to Spec Writer: If a region elects to include this language in their Contract they should be aware that there may be some requirements for installing additional equipment and those requirements should be handled outside of the O&M Contract and follow appropriate Contracting guidelines. If included remove exhibit, mark reserved and annotate table of contents.]]]

#### 1.0 Smart Technologies - Background and Purpose

Because of current Government energy reduction executive orders and regulatory mandates, GSA Public Buildings Service has several programs in development and at various stages of implementation that O&M Contractors should be aware of. One of these programs includes Smart Building technologies. Currently, approximately 250 buildings in the GSA portfolio are undergoing Smart Technologies design and implementation enhancements. Some facility projects involve complete detailed design-built from the infrastructure to completed project designs. Others involve modest retrofits to update key building controls systems. A key objective of implementing Smart Technologies in GSA buildings is to capture and make available more real-time performance data about the individual building systems (HVAC/BAS, Lighting, and Advanced Meters). This data will be made available to O&M Contractors and building support personnel and will increase in significance over time as more details are learned as GSA analyzes this new trend of monitoring building performance at a detailed level. O&M Contractors should be aware that if they are involved in operational support of one of GSA's newer Smart Buildings, that tools, processes, data, and some procedures may need to be modified to meet GSA requirements for long-term improved operational efficiencies as a result of the investment the Government is making in these new technologies. O&M Contractors should continue to monitor developments in this area as more buildings in the GSA portfolio deploy Smart Technologies.

#### 2.0 Trend Toward Integrated Building System Technologies

New building technologies, and their convergence with traditional information technology, have altered the way in which facilities can be monitored, maintained, and operated. Trends in building systems technology have provided opportunities in the market place to alter the way facilities managers use real time data to operate their facilities more efficiently. Building Systems are getting increasingly more dependent on software, IT networks (physical and wireless), servers, internet access, and cloud-based/hosted solutions. This shift in domain expertise has outpaced traditional design and construction practices. As a result, building operations and maintenance staff need to adapt, be more proactive, and leverage the availability of real-time data to help them perform building systems support more effectively. This may involve more thorough planning and redefining some processes, procedures, and job roles in order to better operate the facilities that have these newer technology based systems.

### **3.0 Control Systems**

The Contractor shall maintain control systems and sequences as documented in facility operations plan. The Contractor will document all Integrated Building Systems set-points, schedules and alarms and present them to the Government for initial review and backup and annually thereafter. On an as-needed basis, submit a request to owner for additional recommended trending, monitoring, graphics, or control points with intent to improve building operations, energy efficiencies, and performance of O&M duties. Consider 80/20 rule focusing recommendations on 20% of building equipment that impact 80% of operating efficiency and costs. The Contractor shall be responsible for making set point adjustments as necessary and appropriate to meet GSA objectives in facility operations plan. This action requires the approved by CO or designee. The Contractor shall be responsible for keeping building system software functioning and for upgrading/re-installing software on computers or building system controllers as necessary to keep current with manufacturer release levels and GSA IT support policies and procedures.

### **4.0 Smart Buildings**

The Government is taking proactive steps to converge a building's monitoring and control systems on common GSA-supported network infrastructure to enable access to real-time controls systems performance data (i.e. data points). If the facilities' building systems network was installed and maintained by GSA CIO, then this building has Government-furnished (GFE) network equipment and Smart Technologies deployed. This also means that the Contractor will potentially need to coordinate troubleshooting and support with building system Contractors (HVAC, Lighting, etc.) and GSA CIO to help identify and resolve issues.

### **5.0 Integrated Building Systems (IBS)**

IBS assists the Government by ensuring that all relevant equipment vendors, with equipment installed in facility, maintain their respective systems (i.e. HVAC, BAS, Lighting, Advanced Metering, etc.) in accordance with GSA Smart and Sustainable Buildings intended objectives (i.e. open systems running on a single GSA Building Systems data network). The Contractor shall act as a liaison and facilitate efforts between their respective building-specific monitoring and control system subcontractors and work through the CO or their designee GSA with the Information Technology Office (PBS CIO) on issues related to O&M operations.

The Contractor shall make recommendations to the government (as applicable), on improvements to sequences of operations. Communications for alarms set up for remote notification shall be tested on a recurring basis.

The contractor shall be responsible for keeping manufacturer and/or O&M building system software (BAS, BMS software) functioning. This includes, but is not limited to, upgrading and/or re-installing manufacturer's building system software on GFE computers and manufacturer's building system controllers as necessary to keep current with manufacturer recommended release levels and to keep in compliance with all applicable GSA IT support policies and procedures

## 6.0 Qualifications of BAS Technicians

The Contractor shall be proficient in applicable controls systems (e.g. JCI, Honeywell, Siemens, Delta, Automated Logic, Alerton, and Tridium). All BAS Technicians shall be certified in the building-specific integrated system controls certification (i.e. Tridium Niagara, JCI/Metasys, Siemens Apogee, etc.). The Contractor shall be aware of building systems running on GSA IP Enterprise Network and capable of initiating troubleshooting if network communications is suspect. This means being familiar with procedure for logging GSA IT Help Desk ticket and following up to ensure ticket is being worked by assigned party. Some familiarization with the use of Integrated Control systems, GSA IP Addresses, function of network routers, function of network switches, networks communications, and BAS software will be necessary.

All BAS Technicians shall be certified in the building-specific integrated system controls certification (i.e. Tridium Niagara, JCI/Metasys, Siemens Apogee, etc.). GSA's intent is to align the correct BAS technician certification for the BAS installed in the building.

## 7.0 Smart and Sustainable Buildings (SSB) Training

Mandatory Training (at least one staff member):

- One-hour "GSA Smart and Sustainable Buildings (SSB) Overview"
  - Module 1 - Includes GSA FMSP Smart and Sustainable Buildings Overview
  - Module 2 - Includes PBS CIO Support Procedures

Optional Training (Recommended for more in depth proficiency):

- Penn State GSA Smart Buildings Course (<https://sites.google.com/a/gsa.gov/facility-operations-technologies-training-courses/home/training-calendar>)

## 8.0 Applicable References

Technology Policy for PBS-Owned Building Monitoring and Control Systems  
<https://insite.gsa.gov/portal/content/651562>

Building Technologies Technical Reference Guide  
<https://insite.gsa.gov/portal/content/651562>

## 9.0 GSALink Program **[[[Only applicable for buildings with this technology]]]**

The contractor shall be responsible for utilizing GSALink (where provided by the GSA). In a federally owned building with GSALink, the Contractor shall be responsible for accessing and reviewing identified faults in GSALink on a weekly basis and attend meetings with the Sustainability Support Center (SSC) quarterly and communicating all open issues with the property management.

The contractor shall provide printed GSALink Reports "GSALink Closed Spark Report" and "G-Link Work Order Report" to the CO or their designee monthly as part of the monthly pay submittal package.