**UC San Diego Live Density Program – Use Protocol DRAFT**

Last updated: July 28, 2023

**Scope**
This use protocol applies to UC San Diego’s use and handling of Occuspace Live Density technology by any units, employees, contractors and third-party vendors.

**Purpose**
The purpose of the live density program is to:

1. Provide the public access to live information via the UC San Diego mobile app and the vendor’s portal about public realm facilities, such as libraries, gyms and other community-serving services.
2. Make informed space management decisions.

These two use cases are separate and distinct with different data management requirements, which are described in more detail below.

**Business Process Owner and Data Steward**
The business owner for Space Management and the Live Density Program is the campus planning director. The facilities data steward is responsible for granting and approving access to live density data.

**Sensor Locations**
Since 2018, the live density technology, which includes sensors, has been installed in public facilities like libraries, the bookstore, dining halls and recreation facilities at UC San Diego. This technology assists students and the broader UC San Diego community by providing insights about the current crowd levels, or "busyness," of these locations. It thereby aids in informed decision-making about when to visit these premises.

As part of a comprehensive space management plan to better understand space usage, make more informed decisions and improve emergency response, these sensors are being strategically installed in administrative, research and academic buildings. However, the deployment excludes specific areas, such as the Office for the Prevention of Harassment & Discrimination (OPHD), Student Legal Services, residence halls and animal care facilities. The current sensor locations can be viewed using this link:

[https://rmp.ucsd.edu/fsim/density.html#Which-buildings-have-live-densi](https://rmp.ucsd.edu/fsim/density.html#Which-buildings-have-live-densi)

**Data Collected by the Live Density Sensors**
- The device Wi-Fi Media Access Control (MAC) address, immediately hashed, not stored,
- Date and time of interaction,
- Received signal strength indicator, and
- Location details specific to the floor level, gathered from devices that are switched on and have their Wi-Fi and Bluetooth connections activated.
This data is securely stored locally within the sensor except for the MAC address which is only stored after obfuscation by hashing. Furthermore, MAC addresses are instantly hashed before they are transmitted to the live density technology service provider. Live density sensors use the campus wireless device network with a dedicated virtual local area network (VLAN). This network is isolated from other wireless networks to protect users' real and hashed MAC addresses.

The Live Density Program reports data for spaces 2,500 square feet and larger, ensuring individual desks or offices remain unreported.

**Data Use**

- Live density technology is used to display live crowd levels to the UC San Diego community via the UC San Diego mobile app and the technology vendor's portal. These live density updates for specific locations, such as the Price Center, Bookstore, Career Services, Mail Services, parking services, gyms, libraries and dining halls, are accessible through the app. However, the data concerning administrative, research and academic spaces is not made available to the public.
- It is used to generate dashboards for space managers and space administrators, aiding in the efficient allocation of space resources.
- It may be combined with the Campus Space and Asset Management Systems data to enhance space occupancy analysis.
- In exceptional circumstances, such as a campus emergency, real-time live density data may be shared with first responders. This allows for more informed decision-making when implementing life-saving protocols and procedures.

The data collected by live density sensors will not be used or merged with other data to track individuals, re-identify any individuals, monitor attendance, scrutinize specific protected groups or for any Human Resources objectives outside of space allocation. Data that is personally identifiable or can be reasonably associated with an individual will not be employed for any decision-making processes beyond those of space allocations.

Any deviation from these prescribed uses requires thorough documentation and explicit approval from the data steward. This process will be done with the Campus Privacy Office, with an update to this Use Protocol before such access is granted.

**Data Access**

The following units and roles will have access to data collected through live density sensors:

- Anyone with access to the UC San Diego mobile app or vendor portal will be able to see live density information for certain public buildings, such as libraries, bookstores, dining halls and recreation facilities.
- For effective space management planning, designated Space Managers and report developers, as appointed by the vice chancellor and chancellor, will have access to the live density dataset as approved by the data steward. Their access is intended for generating reports for Live Density Program administrators who will have access to
them. Access to live density data pertaining to administrative, research or academic spaces will be strictly limited to UC San Diego employees or contractors. These individuals must demonstrate both a need and a right to access this data and their use of it must be directly related to space management or emergency response initiatives.

Requests for access may only be approved when the individual has a need to know and a right to know. All individuals with access to the live density data or systems that contain live density data, except through the mobile app and vendor portal, will be trained on the following prior to access:

- Annual Cybersecurity training
- Privacy @ UC San Diego
- Uses and limitations of relevant classes of data
- This Live Density Use Protocol

All requests for access to the data for space management purposes must be documented and approved by the data steward. Requests for uses or disclosure other than those specified in this document require documentation and approval from the data steward and the Campus Privacy Office and an update to the posted notice(s) prior to access.

**Data Sharing**

Data sharing with external parties may only occur with the written approval of the data steward in consultation with the Campus Privacy Office.

Data from live density sensors may only be shared as follows:

- Live density data from libraries, the bookstore, dining halls and recreation facilities is available to anyone viewing the UC San Diego Mobile app or vendor portal.
- For academic research purposes only with approval from the data steward and the Campus Privacy Office, and the Institutional Review Board.
- With law enforcement with a warrant or valid court order or when necessary to respond to an ongoing emergency.
- As required by law, including for Public Records Act requests.

**Safeguards**

UC San Diego and the live density vendor utilize the following safeguards to prevent unauthorized access and use:

- Appropriate encryption.
- Data collected by live density sensors will be anonymized and aggregated at the time of collection to minimize the risk of re-identification.
- Regular security audits and vulnerability assessments will be conducted to identify and address any potential risks or vulnerabilities.
Data Retention
MAC addresses collected by the live density sensors are immediately hashed and not stored in raw form. The aggregated utilization data is stored by the vendor through the duration of the contract.

Aggregated utilization data will be retained throughout the vendor's and UC San Diego's service agreement and then securely deleted when the contract ends.

Notices
The data steward is responsible for publishing clear and transparent information online for the campus community at livedensity.ucsd.edu. This information allows the campus community to understand the locations of all live density sensors along with the areas available for public view via the campus app or other platforms.

The business process owner is responsible for publishing the location of all live density sensor-enabled buildings and floors, including the campus map, and informing facility managers of the program and scope.

Oversight and Audits
Audit and Management Advisory Services (AMAS) may conduct periodic compliance audits of the live density program to ensure that the program complies with this protocol, university policies and relevant laws and regulations.

Protocol Reviews and Updates
The data steward, in consultation with the Campus Privacy Office is responsible for reviewing and updating this use protocol annually and when necessary to reflect changes in laws, technological advancements, uses of the data and organizational requirements. All material changes to this use protocol require community engagement and input and an update to posted notice(s). When changes are made to this protocol, the data steward will change the date at the beginning of this document.