Snapdragon Chemistry’s LabOS™ software allows researchers to collect data and control a wide range of scientific instruments through a single unified interface. LabOS™ grew out of a need for a simple system to control the wide range of equipment and sensors that are used in modern data-rich experimentation workflows. The architecture of the system is outlined below:

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**Specifications**

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| --- | --- |
| **Client interface** | Brower-based. Multi-platform, desktop and mobile. |
| **LabOS Server** | Typically 16 GB RAM with SSD running Ubuntu Linux |
| **LabOS Worker**  | Runs on Windows 10 or embedded devices |
| **Example devices integrated with LabOS worker software** | Flow meters, pumps, temperature controllers, fraction collectors, online LC (Snapdragon Sample Relay System™), DC Power supplies (electrochemistry, photochemistry) |
| **Worker communication protocols** | HTTP, Modbus TCP, Modbus RTU, RS-232, RS-485, 0-10 VDC, 0-20 mA, and others.Integration with Windows API/SDK using .NET. Others possible on request.  |
| **Safety features** | Alert SMS message if values out of expected range. Automated reactor shutdown to safe state. |
| **Automation features** | Software allows users to queue up a series of conditions to evaluate. For each condition, an automation routine will execute.Integration with automation controllers for additional capability. |
| **Self-optimizing reactor** | Integration with the SNOBFIT optimization algorithm is available |

*Example screenshot*

