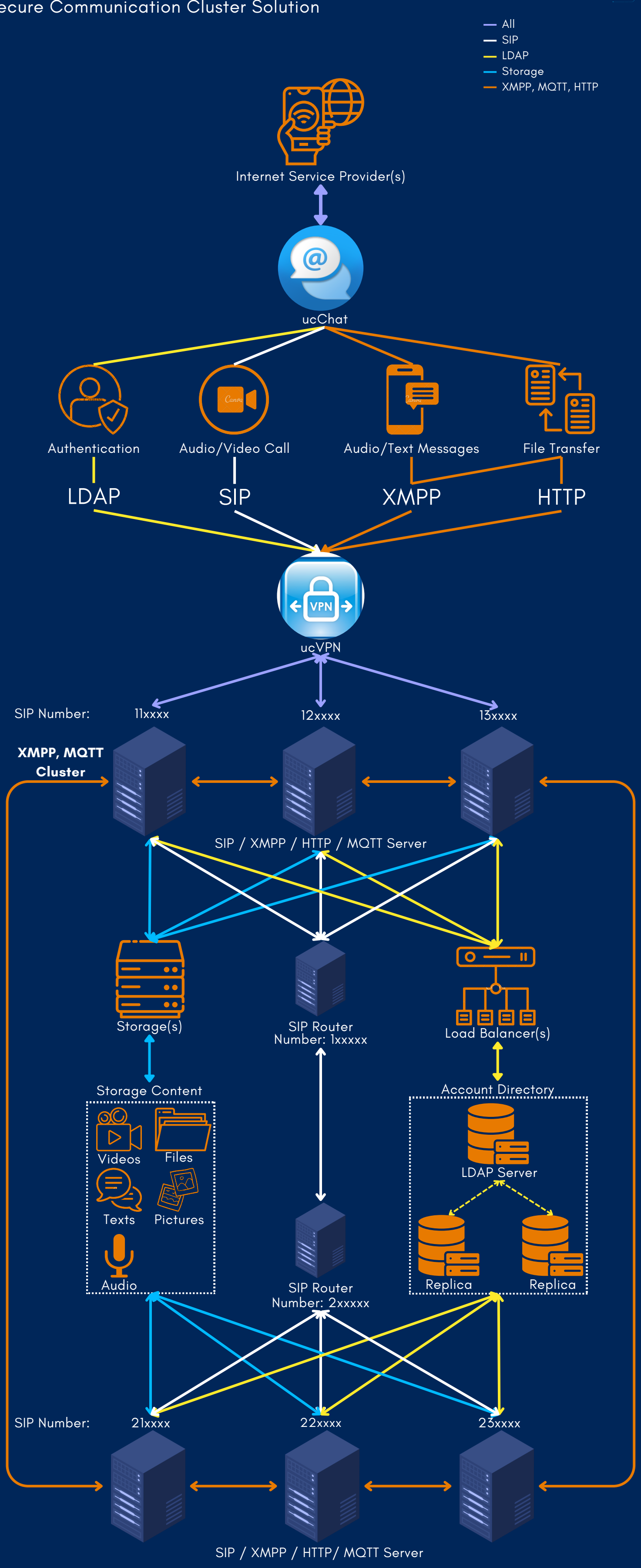




# Product Specification



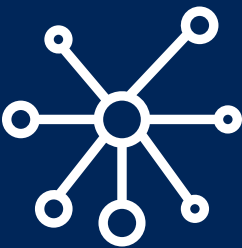
ucChat

|                           |                                                                                                                                                                |                                                                                                            |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Available on              | iOS / Android                                                                                                                                                  | Mac OS / Windows                                                                                           |
| Major Protocols Supported | SIP / XMPP / MQTT                                                                                                                                              |                                                                                                            |
| Functions                 | <ul style="list-style-type: none"><li>Instant Messaging</li><li>Group Chat</li><li>Audio / Video Call</li><li>File Transfer</li><li>Video Conference</li></ul> | <ul style="list-style-type: none"><li>Instant Messaging</li><li>Group Chat</li><li>File Transfer</li></ul> |



UC Server

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum Requirement       | Architecture: X86 / Memory:4G / Storage: 64GB / Core: 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Functions                 | Firewall / Router / VPN / SIP / XMPP / MQTT / HTTP / LDAP Server                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Major Protocols Supported | SIP / XMPP / MQTT / HTTP / LDAP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Functions                 | <ul style="list-style-type: none"><li>Firewall: UC Server can serve as a firewall monitoring network traffic while maintaining VPN connection.</li><li>Router: UC server acts as a router when clients are not registered under the same server</li><li>VPN: Push call ensures the connections between servers and clients are stable and uninterrupted.</li><li>SIP: SIP is a crucial component of Voice over IP (VoIP) and Unified Communications (UC) systems, allowing devices and applications to set up and manage voice and video calls, instant messaging sessions, and other real-time communication sessions over IP networks.</li><li>XMPP: Designed for real-time, instant messaging (IM), and presence information exchange.</li><li>LDAP: It is commonly used in networked environments to centralize the management of user and organizational data.</li><li>MQTT: Designed for communication between devices, and widely used in IoT.</li></ul> |



Cluster Solution

|                  |                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                          |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scalability      | Scalability adapts to growth, prevents bottlenecks, and offers flexibility, future-proofing the infrastructure for evolving needs. By distributing tasks across multiple nodes and dynamically adjusting resources, scalability ensures clusters remain responsive and resilient in the face of shifting requirements. |                                                                                                                                                                                                                                                                                                          |
| Load Balancing   | LDAP<br>SIP<br>VPN                                                                                                                                                                                                                                                                                                     | LDAP specializes in authentication and stores accounts information. Authenticating account information takes time and builds up traffic. To eliminate performance bottlenecks, we implemented load balancers to achieve an efficient and secure communication network environment.                       |
| Data Replication | XMPP<br>MQTT<br>HTTP                                                                                                                                                                                                                                                                                                   | Data replication plays a crucial role in cluster solutions, serving as a safeguard in case of node failures or hardware/software problems. Our priority is to guarantee that all users can instantly access messages and files in various formats that they send to one another under any circumstances. |