

Unified Communications Service (UCS)

The EIS Unified Communications Service (UCS) integrates multiple communication tools such as IP-based phone service, mobile communication, e-mail, voicemail and video calling to enable users to connect, collaborate, and exchange information from any device, anywhere, and at any time.

This service makes all communication devices available inside a single platform providing the ability to track the location of a user on the network, and route incoming communications accordingly. UCS identifies when a user's device connects to the network and the user's current status (e.g., online, offline, away, available, busy, do not disturb, out to lunch, in a meeting, etc.).

UCS is offered in four basic configurations:

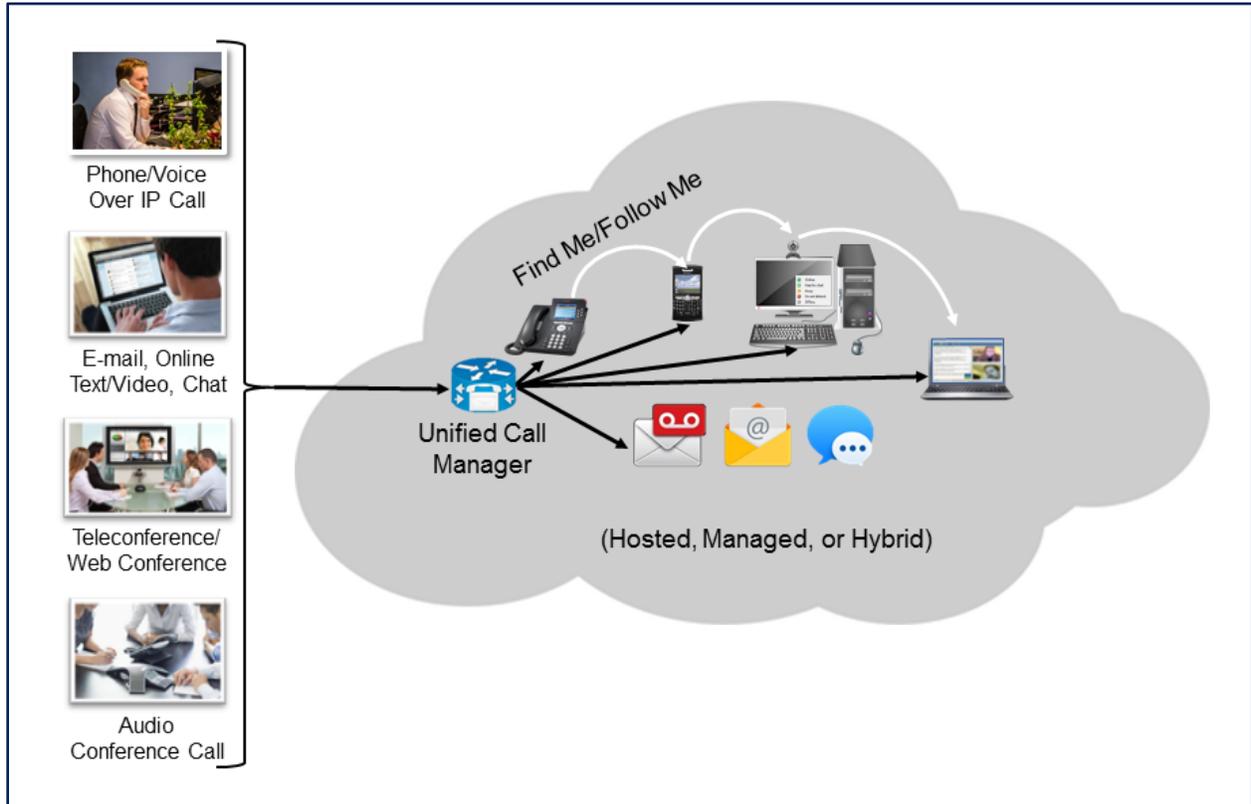
1. Hosted application supporting multiple users over an agency- or contractor-provided IP network
2. Premised-based
3. Hosted
4. Hybrid

Category: Managed Services

Complementary Services that may be Needed: In order to use UCS, the agency may need one or more of the following EIS services or equivalents: IP Voice Service (IPVS), Virtual Private Network Service (VPNS), and other Managed Services such as Audio Conferencing Service (ACS), Video Teleconferencing Service (VTS), and Web Conferencing Service (WCS).

Definitions: Please see EIS contract [Section J.12 Glossary of Terms](#) for clarification of technical terms and acronyms.

Figure 1—Unified Communications Service



1. Why an Agency Might Select this Service

- UCS lets users communicate and collaborate seamlessly by integrating real-time and non-real-time communications, and presenting a consistent unified user interface and user experience across multiple devices and media types. This flexible communications capability enhances the ability of Agency personnel to coordinate activities among increasingly mobile colleagues and teams. The results are improved efficiency and effectiveness, reduced costs, and enhanced customer relationships. Two key capabilities are:
 - Presence Information: Shows the current status of a user (e.g., online, busy, away, etc.).
 - Find-Me/Follow-Me: Allows an employee to make himself/herself available through a single contact number. The system automatically scans availability and rings the correct device accordingly. If there is no response it routes the caller to voice mail.
- UCS is compatible with many communication devices, and is able to incorporate components from different vendors within its infrastructure. This includes desktop phones, mobile devices (smart phones, tablets, and other wireless devices), wireline and IP phones, soft clients, and video conferencing devices. This interoperability helps to keep the initial investment low, as current devices and endpoints can be used.
- A UCS solution is easy to install, administer, and use.

NOTE: Agencies considering this service may also want to compare it with Web Conferencing Service (WCS), Video Teleconferencing Service (VTS), and IP Voice Service (IPVS).

2. Examples of How UCS Could be Used

- **Enhanced Communication and Coordination**: An agency could use UCS to increase the efficiency of communication and coordination among its personnel whether they are in the office, mobile, or teleworking.
- **Hosted Solution**: An agency could implement a hosted UCS solution as a means to integrate current communication devices among its workforce without a large capital investment.
- **Increased Mission Support and Reduced Travel Costs**: UCS's ability to provide new ways of collaborating could be used to reduce travel costs and enable personnel to support the agency's mission anywhere and anytime.

3. Key Technical Specifications

NOTE: This portion of the service guide has been abridged due to space considerations. For full technical details on UCS, please refer to EIS contract [Section C.2.8.3 Unified Communications Service](#).

Table 1—UCS Technical Capabilities

Capability	Description
Multi-device Capability	UCS is compatible with many devices, including desktop phones and mobile devices (smart phones, tablets, etc.), wireline and IP phones, soft clients, and video conferencing devices.
Single Interface	UCS provides user access to and management of voice and video calling, voicemail, e-mail, and fax messages through the same inbox or interface.
Unified Messaging (UM)	Users may access their UCS Unified Messaging (UM) messages from phones, tablets, and PCs. Various browsers are supported.
Unified Communications (UC) Messaging Directory	The UC Messaging Directory is an administrative system managing and integrating communications tools ("objects" in the Directory) assigned to each user, and the Enterprise or Agency as a whole. The Directory enables the integration of UM with existing telephony infrastructure.
Integration of UM with Existing Telephony Infrastructure Capability	UCS supports UM integration with existing phone system capabilities including: <ol style="list-style-type: none"> 1. Dial Plans 2. Mailbox Policies 3. IP Gateways 4. Hunt Groups 5. Auto Attendants 6. Servers 7. Users

<i>Capability</i>	<i>Description</i>
Mobile Integration	UCS provides the following mobile integration functionality: <ol style="list-style-type: none"> 1) Provides users with a single identity that lets them handle business calls via their desk and mobile phones. 2) Provides users the ability to have calls forwarded to any phone and to use a single number for making and receiving all calls. 3) Supports handing off calls from cellular to Wi-Fi connections and vice versa on smart phones. 4) Enable users to initiate phone calls, retrieve voicemail and corporate directories, access instant messaging, and participate in video conferencing. 5) Provides features that are accessible from mobile phones, laptops, and tablets. 6) Provides access to corporate directories and visual voicemail, and feature seamless handoff between cellular and Wi-Fi calls. 7) Allows calls to or from mobile devices to take place anywhere and anytime as if they are going to or coming from the desk phone numbers.
Unified User Interface	The UCS Unified User Interface provides: <ol style="list-style-type: none"> 1) Built-in features such as presence, instant messaging, integrated soft phones, voice conferencing, video calling, and conferencing. 2) Voice activation that integrates seamlessly with other business communication systems. 3) Real-time communications: instant messaging, presence that identifies which participant is speaking, voice calls to video, voice calls to email. 4) Non-real time communications : e-mail, text messaging, fax, voicemail. 5) Collaboration and data sharing: electronic bulletin boards, e-Calendar, audio/video/web conferencing.
Any Device	UCS provide users with the ability to access unified communication and collaboration capabilities from a variety of devices: <ol style="list-style-type: none"> 1. IP phones 2. Mobile phones 3. Web browsers (NOTE: May not be available from all contractors.) 4. E-mail clients 5. Desktop clients 6. PCs 7. Tablets
Instant Messaging	Instant messaging between two users or multiparty (up to an agency-defined number of participants).

Capability	Description
Presence	<ol style="list-style-type: none"> 1) The ability for users to display their presence status (e.g., Available, Away, Do Not Disturb, Busy, or Offline) to let others know their availability for communication. 2) Presence integration with agency collaboration applications, such as calendaring, that automatically updates presence when users are in a meeting.
Web, Audio and Video Integration	<ol style="list-style-type: none"> 1) Audio and video conversations between two or more users (up to an agency-defined number of participants), using web cameras, speakers, and microphones. 2) Scheduled and ad hoc web conferencing for conducting online presentations including audio, video, screen sharing, and a virtual whiteboard. PC-to-PC and multiparty data sharing capabilities including desktop sharing, application sharing, presentations, virtual whiteboard, annotations, and polling.
File Transfer Capabilities	File Transfer capabilities to send and share files between two or more users.
Ease of Use and Agency-Administration Capabilities	<ol style="list-style-type: none"> 1) Allow users to organize their contacts by Contact Groups. 2) Agency-managed instant messaging administration (add/change/delete users). 3) Single sign-in capabilities through the agency's Enterprise Active Directory (EAD) system. 4) Automated and/or staffed UCS-dedicated Service Desk available 24/7. 5) Enhanced access to instant messaging from within the agency's enterprise network or from the Internet, through a variety of devices and software, in a secured mode using encryption. (NOTE: May not be available from all contractors.)
Quality of Service (QoS)	<p>For UCS provided over the contractor's IP network, it also provides capabilities to support Quality of Service (QoS):</p> <ol style="list-style-type: none"> 1) Configuration Options for QoS 2) Traffic Prioritization 3) QoS Queuing Methods and Scheduling
IPv4 and IPv6	UCS supports both IPv4 and IPv6 and is able to communicate over IPv4-only, IPv6-only, and/or dual-stack networks.
Voice Quality	UCS meets a minimum voice quality level that is equivalent to or better than a Mean Opinion Score (MOS) of 4.0 as specified in ITU-T specification P.800 series.
Premises-based WAN Optimizer (NOTE: May not be available from all contractors.)	Provides a premises-based WAN optimizer to collect only the changes from each site, if the compilation of the current status of all users being logged on is transmitted over the agency WAN.

<i>Capability</i>	<i>Description</i>
Security	The service ensures that security practices and safeguards are provided to minimize susceptibility to security issues and prevent unauthorized access. This includes SIP-specific gateway security for SIP firewalls where applicable. UCS also complies with agency-specific security policies, regulations, and procedures.

NOTE: The EIS contract contains no features for UCS.

4. Pricing Basics for UCS

Please visit the [EIS Resources Listing](#) and locate the [Basic EIS Pricing Concepts Guide](#) to gain an understanding of EIS pricing fundamentals.

4.1 Access Arrangements

Appropriate access arrangements must be selected for each endpoint. Please visit the [EIS Resources Listing](#) and locate the [Access Arrangements Guide](#) for more detailed information.

4.2 Service Related Equipment (SRE)

- SRE must be chosen based on equipment required at each location. NOTE: SRE uses catalog-based pricing.
- Request that contractor provide pricing for any SRE that would be required, in addition to the agency's existing infrastructure, to deliver the service.
- Please visit the [EIS Resources Listing](#) and locate the [Service Related Equipment Service Guide](#) for more detailed information.

4.3 UCS Price Components

The price structure for UCS consists of the components shown in *Table 2* below.

Table 2—UCS Pricing Components

Component	Charging Unit
Network Design and Engineering Service Individual Case Basis (ICB) and Non Recurring Cost (NRC)	Per Solution
Hosted UCS Unlimited Monthly Recurring Charge (MRC) and NRC	Per Seat
Managed UCS Unlimited (ICB MRC and ICB NRC)	Per Seat
Hybrid UCS Unlimited (ICB MRC and ICB NRC)	Per Seat

Figure 2 below shows how the pricing components in Table 2 are combined to produce the total cost for the service.

Figure 2—This figure shows how the various pricing components in Table 2 would be combined to calculate the total UCS charges. NOTE: One or more of these components may not be needed to price a particular service package.



The charges for the different components in Figure 2 are calculated using details provided in the pricing tables in EIS contract [Section B.2.8.3 Unified Communications Service](#). (Please visit the [EIS Resources Listing](#) and locate the [Basic EIS Pricing Concepts Guide](#) for instructions on using the pricing tables to compute the cost of a service.)

NOTE: A contractor may offer a custom variation of the service to meet an agency's unique requirements. Such a customization would be identified with a Task Order Unique CLIN (TUC), and would include charges that would have to be added to the components in Figure 2 to determine the total cost of the service.

4.4 UCS Pricing Example

Example: Hosted UCS with 100 Seats

Service CLIN: UC22001

- Choose CLIN UC22001 “Hosted UCS Unlimited” from EIS contract table *B.2.8.3.2.3—Unified Communications Service Pricing Instructions Table*.
- Identify the price per seat in table *B.2.8.3.2.1—Unified Communications CONUS Service Prices Table* and/or in table *B.2.8.3.2.2—Unified Communications OCONUS and Non-Domestic Service Prices Table*.

The prices presented in both the CONUS Service and OCONUS Service tables are banded, based on the number of seats. Since in this example you are pricing 100 seats, to obtain your price per seat, go first to the row for which 100 seats falls within the range between the Band Low and Band High values.

- Multiply the price per seat from one or both tables by 100, the number of seats.

NOTE: No examples are provided for the following services, as all are priced as ICB:

- Network Design and Engineering Services
- Managed UCS
- Hybrid UCS

5. References and Other Sources of Information

- For more technical details and information on UCS, please refer to EIS contract [Section C.2.8.3](#); for pricing details, [Section B.2.8.3](#).
- For more information on service-related items, please see:
 - EIS contract [Section B.2.10 Service Related Equipment](#)
 - EIS contract [Section B.2.11 Service Related Labor](#)
- Please refer to a contractor's individual EIS contract for specifics on the contractor's UCS offerings.
- For additional EIS information and tools, visit the [EIS Resources Listing](#).
- For guidance on transitioning to EIS, please visit [EIS Transition Training](#) where you'll find several brief video training modules.