



Huawei eSpace U1981 Unified Gateway Datasheet

Product Overview

Huawei eSpace U1981 unified gateway (U1981 for short) is a core voice gateway in the Huawei Unified Communications (UC) solution. It works with Huawei IP terminals and UC applications to provide professional IP telephony (IPT) and UC services.



The lightweight U1981 uses the highly-integrated broadband and narrowband design to accommodate 20,000 users per subrack. U1981 allows for hybrid networking of analog phones and IP phones. It can connect to the public switched telephone network (PSTN) or to voice switches in private networks using digital, analog, and broadband SIP trunks.

U1981 is equipped with modular function boards to simplify installations and support hot swapping. U1981 can be quickly deployed and easily maintained with the assistance of graphical configuration tools.

Product Highlights

High integration and impressive array of functions

- Extensive IPT services
- Built-in high-fidelity audio conferencing, with multiple conferencing modes available
- One Number Link You (ONLY), allowing users to answer incoming calls from anywhere, at any time, in the way that users prefer
- Built-in voice mailbox, recording messages from unanswered callers so users never miss any important calls
- UC application extension

High stability and high reliability

- 99.999% carrier-class reliability
- Redundancy backup for key modules

Effective cost control

- Number analysis and whitelist/blacklist
- 32-level customized call rights
- Password-based call barring
- Intelligent routing, saving communications costs

Quick deployment and easy maintenance

- GUI-based deployment tools for easy and quick installation
- Unified network management system, helping improve management and maintenance efficiency
- Built-in web management system for convenient operations

INNOVATIVE ICT
BUILDING A BETTER CONNECTED WORLD



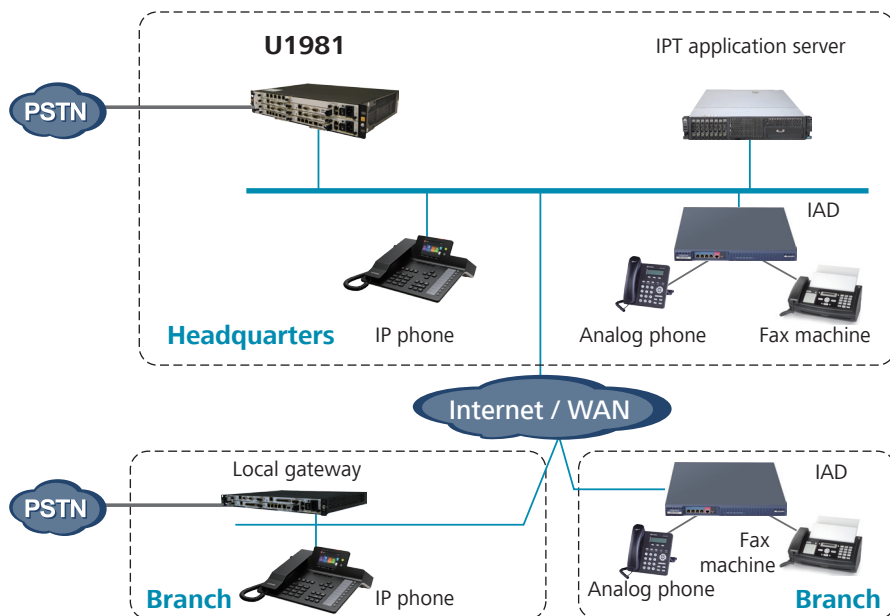
Typical Applications

U1981 is a large-capacity voice gateway with carrier-grade reliability and applies to large-sized voice communication scenarios. U1981 provides a wide range of voice services. It supports two-node cluster deployment and geographical redundancy.

IPT application scenarios

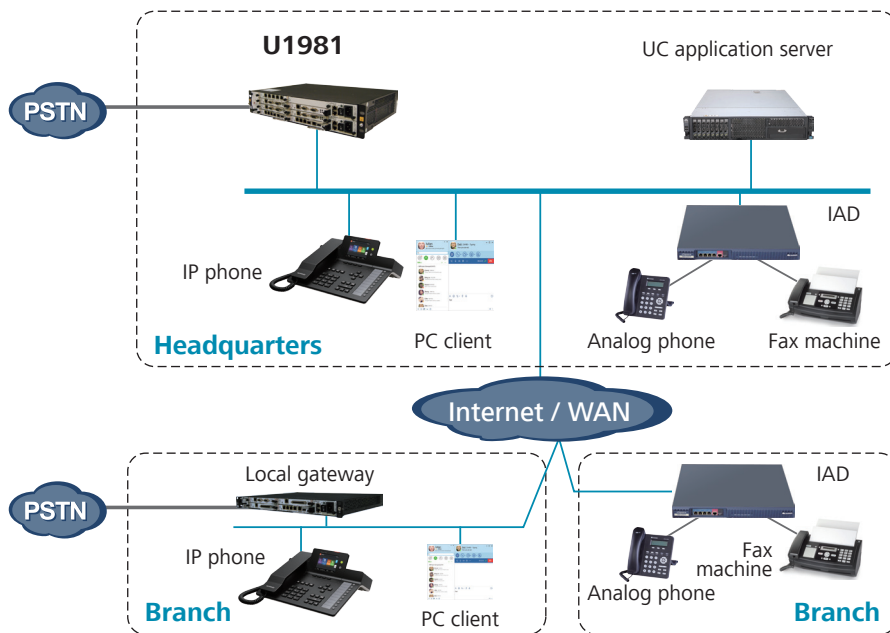
U1981 provides call control services for network-wide users as a core voice gateway. The branches, according to their user capacities, can use different models of Huawei eSpace U1900 series gateways as local voice gateways. These local voice gateways support local regeneration to ensure service continuity.

Using narrowband and broadband trunks, local voice gateways can be connected to external networks, such as PSTN, to implement communication between internal and external (mobile and fixed-line) users. In this case, SIP phones can be connected directly. Analog phones and fax machines can be connected through integrated access devices (IADs).



UC application scenarios

Based on IPT application scenarios, UC application servers (enhanced communication suites) can be deployed at the same time to enrich communication channels and improve communication efficiency with a wide range of UC services, including presence, instant messaging, and multimedia conferencing. In this case, U1981 works as a core voice gateway.



Technical Specifications

Parameter	Specification
User capacity per U1981	A maximum of 20,000 users (including 160 directly-connected analog phone users)
Terminals supported	Analog phone, IP phone, video phone, and soft terminal
Trunk ports	A maximum of 60 FXO ports, 24 E1/T1 ports, or 20 BRI ports
Trunk protocols	PRI, QSIG, SS7, R2, SIP, BRI
Codecs	G.711a/μ, G.729a/b/ab, iLBC, and G.722/G.722.1/G.722.2
Conference capacity	A maximum of 2000 participants A maximum of 660 conferences, with a maximum of 360 participants per conference
Built-in voice mail	30 channels concurrently Built-in 16G SD storage card
Power supply	AC: 100–240 V AC, 50/60 Hz DC: –38.4 V to –60 V (typical value: –48 V) Two power modules in 1+1 backup mode
Power consumption	220 W (full configuration)
Dimensions (H x W x D)	Standard 19-inch 2U subrack 86.1 mm x 442 mm x 310 mm
Weight	10 kg (full configuration)
Environment	Storage temperature: –40°C to +70°C Long-term operating temperature: 0°C to 45°C Short-term operating temperature: –5°C to +55°C Operating humidity: 5% to 95% relative humidity (RH), no condensing Air-filtration systems should be deployed in the operating environment. Air-borne dust potency should be less than 180 mg/m ³ .
System reliability	≥ 99.999% Mean time between failure (MTBF): 30 years
Maintainability	Centralized/Remote device management, log management, resource management, and alarm management



Ordering Information

Basic configuration
eSpace U1981 DC host (including 1 SCU, 1 MTU)
eSpace U1981 AC host (including 1 SCU, 1 MTU)
eSpace U1981 DC subrack
eSpace U1981 AC subrack
Interface boards
Analog user interface board (32 FXS interfaces, including 10-m user cables)
Analog user and analog trunk interface board (12 FXO & 12 FXS interfaces, including 10-m user cables)
BRI trunk interface board (4BRI, including 4 BRI interface cables)
Media trunking unit
SD card-MLC-interface rate 6MB/S or above-32mm*24mm-16GB-Class6 to Class10
eSpace U1981 auxiliaries
eSpace U1981 switching and main control boards
DC power module (350W, -48V)
Primary power supply--25degC-60degC-90V-290V-12V/25A
User power cable-high-density user subrack-32-channel user board-10m-0.4mm-64 cores-(D68M-V)-(CC32P0.4P430U-I)
User power cable-high-density user subrack-32-channel user board-20m-0.4mm-64 cores-(D68M-V)-(CC32P0.4P430U-I)
User power cable-high-density user subrack-32-channel user board-40m-0.4mm-64 cores-(D68M-V)-(CC32P0.4P430U-I)
User power cable-high-density user subrack-32-channel user board-50m-0.4mm-64 cores-(D68M-V)-(CC32P0.4P430U-I)
Trunk cable-20m-75ohm-1E1-2.2mm-(D9M)-(SYFVZP75-1.2/0.25*4(S))-(2*BNC75SM-V)
Trunk cable-20m-100ohm-1*T1-0.52mm-(D9M)-(CC4P0.5GY(S))-MP8-II
Coaxial Connector-BNC-75ohm-Straight/Socket-Dual,Female-Connected With E1 Cable BNC Male Plug
Coaxial Connector-SMB-75ohm-Straight/Connector-Female-Matching SYFVZ-75-1-1-Gild Electroplating
Coaxial Connector-SMB-75ohm-Straight/Connector-Male-Matching SYFVZ-75-1-1-Gild Electroplating,For OEM
Single Cable-120ohm-75ohm Converter Box (With BNC Socket 14040083)-2*BNC75SF-26UL2464(4C)B+PCB03022938)

For more information, visit <http://e.huawei.com> or contact Huawei's local sale office.

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