

# Cisco Room Panorama



# Contents

05	Features and benefits
07	Product specifications
14	Ordering information
14	Warranty information
15	Cisco environmental sustainability
15	Cisco services and support
15	Cisco Capital
15	For more information



## Cisco Room Panorama is a first-class video collaboration system built for the modern C-suite.

The Room Panorama provides immersive video experience on Webex and other cloud meeting services, rich content sharing, and co-creation experience. These fully integrated systems combine beautiful design and powerful functionality into an all-in-one solution for medium-to-large meeting spaces and boardrooms. The Room Panorama features a powerful engine to build more complex and specialized video scenarios. It will transform your meeting spaces into a video collaboration hub—whether for connecting teams across the world or for local meetings.

Cisco Room Panorama provides an exceptional meeting experience with rich cognitive capabilities to turn the physical executive meeting room into a virtual space for smooth collaboration, ideation and decision-making. It's a single, immersive system that brings local and remote teams together, provides a premium meeting experience and is more accessible than other high-end room systems. Taking telepresence technology to the next level, Room Panorama is a multi-purpose solution, bringing all your meeting scenarios into a single device, including local, point-to-point, multi-point and immersive collaboration, without the need to switch rooms in between. With a

smaller footprint in the room, adaptable design, and video and audio that reflects an in-person meeting, the experience is truly transformative for hybrid communication.

The Room Panorama offers a complete technology package from Cisco (Figure 1). This includes everything you need to make it operational, including:

- Two Samsung 85-inch 8K QLED displays for video and one Samsung 65-inch 4K display for presentations
- Codec Pro and the multi-lens Cisco Quad Camera at 60 frames per second (fps)
- Cisco Room Navigator controller
- 12-loudspeaker system with directional audio capabilities
- 4 bass modules
- Cooling system
- Audio amplifier
- Complete power system
- 3-element Cisco Table Microphone Pro array
- Presentation cables

- Wall structure: The customer can design their own wall finish to match the existing room, or they can buy the Cisco wall finish in light oak as an option

Cisco Room Panorama delivers industry-leading video and spatial audio experience to connect dispersed teams and make sure everyone has an equal seat at the table to make business-critical decisions. In addition, new capabilities enable even smarter meetings, smarter presentation capabilities, and smarter room and device integrations, further removing the barriers to usage and deployment of video in large-sized rooms. The Room Panorama is built on the powerful Room Kit Pro platform. This means there are more inputs and outputs to cover more meeting scenarios and larger rooms. The Room Panorama now offers more power and flexibility to build custom and more specialized video conference rooms than ever before.

The Room Panorama—comprising a powerful codec, a Cisco Quad Camera, dual 85-inch 8K video displays, and a 65-inch 4K presentation display—is ideal for rooms that seat up to 14 people. It offers sophisticated camera technologies that bring panoramic video, directional audio,



Figure 1. Multi-point meeting in an executive boardroom

speaker-tracking, and auto-framing capabilities to medium to large-sized rooms. The product is rich in functionality and experience and designed to be easily scalable to

all your large conference rooms and spaces, whether registered on the premises or to the Webex cloud service.

## Features and benefits

Table 1 outlines key features and benefits of the Room Panorama.

**Table 1.** Webex Room Panorama features and benefits

FEATURE	BENEFITS
<p><b>Design features</b></p>	<ul style="list-style-type: none"> <li>• One of the most powerful and feature-rich video systems available with the ultimate in video and audio quality</li> <li>• Next-generation UHD (4K) video collaboration codec</li> <li>• Next-generation HD fully automatic camera</li> <li>• Everything you need is included (screens, speakers, codec, camera, touch user interface, microphones, mounting)</li> <li>• Blends into your meeting room: Choose your own finish of the wall or buy the Cisco wall finish option</li> <li>• Standards-compliant 1080p and 2160p solution: Compatible with standards-based video without losing features</li> </ul>
<p><b>Smart meetings</b></p>	<ul style="list-style-type: none"> <li>• Brings intelligent views to medium- to large-sized rooms with discreet, integrated cameras                             <ul style="list-style-type: none"> <li>• Panorama video: Using multiple camera lenses together to create a wide panoramic view</li> <li>• Group view: Automatically detects meeting participants and provides ideal framing</li> <li>• Frames: Automatically crops participants or groups of participants for a more equitable experience</li> <li>• Speaker tracking: Detects and switches between active speakers and provides ideal framing</li> </ul> </li> <li>• Great audio experience with integrated speakers and external microphones</li> <li>• Automatic wake-up: System “wakes up” when someone walks into the room, and recognizes them through their mobile device</li> <li>• Easily controlled by the Cisco Room Navigator or with a Webex app-enabled device</li> <li>• Supports switched conferencing for enhanced layouts and enables video on multiple screens</li> <li>• Participate in Webex whiteboarding sessions from the Webex app: Receive on-screen notification of shared whiteboard content (supported on cloud-registered devices)</li> <li>• HD collaboration with 1080p60 video and 2160p15 content</li> <li>• Simplified meeting-join experience with One Button To Push (OBTP)</li> <li>• End-to-end security</li> </ul>
<p><b>Smart presentations</b></p>	<ul style="list-style-type: none"> <li>• Three screens for video and content</li> <li>• Supports triple content sources for local meetings</li> <li>• 4K content sharing (local 30 fps; remote 15 fps)</li> <li>• Wired or wireless content sharing (supports HDMI, Webex, Cisco Intelligent Proximity, Miracast and Apple AirPlay)</li> </ul>

Table 1. Webex Room Panorama features and benefits

FEATURE	BENEFITS
<p><b>Smart integrations</b></p>	<ul style="list-style-type: none"> <li>• Metrics: Counts people in the room, enabling analytics for better resource planning</li> <li>• Supports Wi-Fi</li> <li>• Easily control room peripherals such as lights, room dividers, and curtains, directly from the Cisco Room Navigator control unit through customizable APIs (requires external third-party control system processor)</li> </ul>
<p><b>Performance features</b></p>	<ul style="list-style-type: none"> <li>• Optimal definition up to 1080p60</li> <li>• H.323/SIP up to 16 Mbps point to point</li> <li>• Six simultaneous video inputs: Three 4K and three full HD</li> <li>• Connect up to eight microphones directly to the codec</li> <li>• Full duplex audio with high-quality stereo sound</li> <li>• Full Application Programming Interfaces (APIs)</li> <li>• Cisco Media Assure packet loss protection (Cisco ClearPath also supported)</li> </ul>
<p><b>Built for cloud and premises</b></p>	<ul style="list-style-type: none"> <li>• Flexibility to register on the premises or to the cloud through Webex</li> <li>• Hardware is optimized to run on a cloud platform for great experiences in shared rooms and spaces, with easy access to hosted conferences</li> </ul>



Figure 2. Point-to-point meeting in a large conference room

# Bringing more intelligence to medium- to large-sized rooms

The Cisco Room Panorama is video innovation in an easy-to-install all-in-one unit, bringing more intelligence and usability to your medium- to large-sized team collaboration rooms. While other vendors struggle to insert advanced features such as speaker tracking, wireless sharing, and 4K content into their high-end products, Cisco is already proliferating these innovations to meeting rooms of all sizes in a cost-effective and simple way.

With the Room Panorama, you can experience smarter meetings, enable smarter presentations, and create smarter room and device integrations. And when registered to Webex in the cloud, additional cloud-based functionalities are enabled that enhance the user experience and team workflow as well as further simplify deployment.

- **Smart meetings:** Powerful, integrated cameras deliver intelligent view capabilities, such as panorama video, automatic framing and speaker tracking; automatic noise suppression reduces meeting disruptions.
- **Smart presentations:** Room Panorama supports up to three screens, dual content sources, wireless sharing, and 4K content for great presentations.
- **Smart integrations:** People count for usage metrics and resource allocation; tight integrations with screens enhance user interactions; APIs and macros allow for meeting personalization.
- **Registration flexibility:** Room Panorama is built for both cloud and on-premises deployment, protecting your investment.

## Cisco Room Panorama registration

Table 2. Available licenses and terms

LICENSE LEVEL	TERM
Cisco Device Subscription	Monthly or 1-, 2-, 3-, 4-, or 5-year options

## Product specifications

Table 3. Specifications

SPECIFICATION	DESCRIPTION
Software compatibility	<ul style="list-style-type: none"> <li>• Cisco Collaboration Endpoint Software Version 9.12 or later, or RoomOS</li> </ul>
Default components	<ul style="list-style-type: none"> <li>• Cisco Codec Pro for Room Panorama</li> <li>• Cisco Quad Camera</li> <li>• 2x 85-inch main monitors</li> </ul>

Table 3. Specifications

SPECIFICATION	DESCRIPTION
<p><b>Default components</b> <b>(Continued)</b></p>	<ul style="list-style-type: none"> <li>• 1x 65-inch presentation display</li> <li>• 12x loudspeakers</li> <li>• 4x bass units</li> <li>• Cisco Natural Audio Module IV (amplifier)</li> <li>• Cisco Room Navigator control unit</li> <li>• Wall structure (optional wall finish)</li> <li>• 3-element Cisco Table Microphone Pro array</li> <li>• 2x Cisco Multi-head cable 9 meter (HDMI – HDMI, USB-C, Mini DP), LAN cable, and power cable</li> </ul>
<p><b>Displays</b></p>	<p>Main screens (2 pcs)</p> <ul style="list-style-type: none"> <li>• Samsung LH85QPA8BCCXEN</li> <li>• 85-inch VA–LCD Neo QLED display, direct LED BLU (mini LED)</li> <li>• Resolution: 7680 x 4320 (16:9), 8K UHD</li> <li>• Contrast ratio: Typical 1200:1</li> <li>• Viewing angle: +/- 89 degrees</li> <li>• Response time: 6 ms</li> <li>• Brightness: 500 cd/m2</li> </ul> <hr/> <p>Presentation screen</p> <ul style="list-style-type: none"> <li>• Samsung LH65QMREBCCXEN</li> <li>• 65-inch VA–LCD display, edge LED</li> <li>• Resolution: 3840 x 2160 (16:9), 4K UHD</li> <li>• Contrast ratio: Typical 4000:1</li> <li>• Viewing angle: +/- 89 degrees</li> <li>• Response time: Typical 8 ms</li> <li>• Brightness: 300 cd/m2</li> </ul>
<p><b>Optional hardware components</b></p>	<ul style="list-style-type: none"> <li>• Additional Table Microphones</li> </ul>
<p><b>Bandwidth</b></p>	<ul style="list-style-type: none"> <li>• Up to 16 Mbps</li> </ul>
<p><b>Firewall traversal</b></p>	<ul style="list-style-type: none"> <li>• Cisco Expressway™ technology</li> <li>• H.460.18, H.460.19 firewall traversal</li> </ul>



Table 3. Specifications

SPECIFICATION	DESCRIPTION
<b>Video standards</b>	<ul style="list-style-type: none"> <li>• H.264, H.265, H.263 for TANDBERG™ MXP interop only (check admin guide)</li> </ul>
<b>Video inputs</b>	<ul style="list-style-type: none"> <li>• Two HDMI inputs support formats up to maximum 1080p60 (in use)</li> <li>• Three HDMI inputs support formats up to maximum UHD (3840 x 2160) @ 30 fps including HD1080p60</li> <li>• One 3G-SDI/HD-SDI input supports formats up to maximum 1080p60</li> <li>• Extended Display Identification Data (EDID)</li> <li>• Consumer Electronics Control (CEC) 2.0</li> </ul>
<b>Video outputs</b>	<ul style="list-style-type: none"> <li>• Two HDMI outputs support formats up to 3840 x 2160 @ 60 fps (4Kp60) (in use for main screens)</li> <li>• One HDMI output supports formats up to 3840 x 2160 @ 30 fps (4Kp30) (in use for presentation screen)</li> <li>• Consumer Electronics Control (CEC) 2.0</li> </ul>
<b>Encode and decode</b>	<ul style="list-style-type: none"> <li>• Video stream: Full HD 1080p60</li> <li>• Content stream: 4K 2160p15</li> </ul>
<b>Audio standards</b>	<ul style="list-style-type: none"> <li>• G.711, G.722, G.722.1, G.729AB, 64 kbps, and 128 kbps MPEG4 AAC-LD mono and stereo, OPUS</li> </ul>
<b>Audio features</b>	<ul style="list-style-type: none"> <li>• High-quality 45-20.000Hz</li> <li>• Eight separate acoustic echo cancellers</li> <li>• Automatic Gain Control (AGC)</li> <li>• Automatic noise reduction</li> <li>• Active lip synchronization</li> <li>• Full-range multichannel and bass speakers</li> </ul>
<b>Audio inputs</b>	<ul style="list-style-type: none"> <li>• Eight microphones, 48V phantom powered, Euro block connector, each with separate echo cancellers and noise reduction; all microphones can be set for balanced line level</li> <li>• Three HDMI, digital: Stereo PC/DVD input</li> </ul>
<b>Audio outputs (external)</b>	<ul style="list-style-type: none"> <li>• Six balanced line level outputs, Euro block connector</li> <li>• Three HDMI outputs (in use for embedded screens)</li> </ul>

Table 3. Specifications

SPECIFICATION	DESCRIPTION
<b>Audio system</b>	<ul style="list-style-type: none"> <li>• Amplifier power output rating (per channel): 25W @ 8Ohm or 50W @ 4Ohm</li> <li>• Amplifier channels: 16</li> </ul>
<b>Speaker tracking</b>	<ul style="list-style-type: none"> <li>• 8-element microphone array for accurate speaker tracking</li> </ul>
<b>Dual stream</b>	<ul style="list-style-type: none"> <li>• H.239 (H.323) dual stream</li> <li>• Binary Floor Control Protocol (BFCP) (SIP) dual stream</li> <li>• Supports resolutions up to 3840 x 2160p15 (4Kp15) and 1080p60</li> </ul>
<b>Wireless sharing</b>	<ul style="list-style-type: none"> <li>• Webex client (up to 3840 x 2160p7.5)</li> <li>• Cisco Intelligent Proximity client (up to 1920 x 1080p5)</li> <li>• Miracast (1920 x 1080 at 60 fps) – Not available on non-radio version</li> <li>• Apple AirPlay wireless sharing – Bonjour service discovery only on non-radio version. Screen mirroring up to 1920 x 1080 at 60 fps, Extended desktop (Mac only) – up to 1920 x 1080 at 60 fps, Video streaming – up to 3840 x 2160 at 30 fps</li> </ul>
<b>Protocols</b>	<ul style="list-style-type: none"> <li>• H.323</li> <li>• SIP</li> <li>• Webex</li> <li>• WebRTC</li> </ul>
<b>Embedded encryption</b>	<ul style="list-style-type: none"> <li>• H.323 and SIP point to point</li> <li>• Standards-based: H.235 v3 and Advanced Encryption Standard (AES-128 or 256)</li> <li>• Automatic key generation and exchange</li> </ul>

Table 3. Specifications

SPECIFICATION	DESCRIPTION
<p><b>IP network features</b></p>	<ul style="list-style-type: none"> <li>• DNS lookup for service configuration</li> <li>• Differentiated services (Quality of Service [QoS])</li> <li>• IP-adaptive bandwidth management (including flow control)</li> <li>• Automatic gatekeeper discovery</li> <li>• Dynamic playout and lip-sync buffering</li> <li>• H.245 Dual-Tone Multi-frequency (DTMF) tones in H.323</li> <li>• DTMF tones in SIP, RFC 4733</li> <li>• Date and time support using Network Time Protocol (NTP)</li> <li>• Packet loss-based downspeeding</li> <li>• Uniform Resource Identifier (URI) dialing</li> <li>• TCP/IP</li> <li>• Dynamic Host Configuration Protocol (DHCP)</li> <li>• 802.1X network authentication</li> <li>• 802.1Q virtual LAN</li> <li>• 802.1p (QoS and class of service [CoS])</li> <li>• Cisco Media Assure and ClearPath</li> </ul>
<p><b>Call control</b></p>	<ul style="list-style-type: none"> <li>• Cisco Collaboration Cloud/Webex</li> <li>• Native registration with Cisco Unified Communications Manager (UCM)                             <ul style="list-style-type: none"> <li>• Requires UCM Version 10.5.2 or later with device pack for Room Panorama</li> </ul> </li> <li>• Native registration with Cisco Video Communication Server (VCS)</li> <li>• Panorama Video not supported on H323</li> <li>• Support for Room Panorama beginning with version TMS 15.11</li> </ul>
<p><b>IPv6 network support</b></p>	<ul style="list-style-type: none"> <li>• Single-call stack support for both H.323 and SIP</li> <li>• Dual-stack IPv4 and IPv6 for DHCP, SSH, HTTP, HTTPS, DNS, DiffServ</li> <li>• Support for both static and automatic IP configuration, stateless address auto configuration, and DHCPv6</li> </ul>
<p><b>Security features</b></p>	<ul style="list-style-type: none"> <li>• Secure management using HTTPS and SSH protocols</li> <li>• End-to-end encryption for calls and meetings on Webex</li> <li>• Standards-based media encryption on all back-ends (Secure Real-time Transport Protocol [SRTP], using AES-128-GCM or AES-256-GCM)</li> <li>• WPA3TM and WPA3-Enterprise with CCMP128 Wi-Fi ® security</li> <li>• Password protection to access administration (Room Navigator)</li> <li>• Network settings protection</li> </ul>

Table 3. Specifications

SPECIFICATION	DESCRIPTION
<b>Certificate management</b>	<ul style="list-style-type: none"> <li>• Certificate Authority Proxy Function (CAPF) support for additional security</li> <li>• Manufacturer-Installed Certificates (MIC)</li> <li>• Locally Significant Certificates (LSC)</li> <li>• X.509 digital certificates (DER encoded binary); both DER and Base-64 formats are acceptable for the client and server certificates; certificates with a key size of 1024, 2048, and 4096 are supported</li> </ul>
<b>Network interfaces codec medium</b>	<ul style="list-style-type: none"> <li>• One Ethernet (RJ-45) 10/100/1000 for LAN</li> <li>• Two Ethernet (RJ-45) 10/100/1000 for direct pairing with camera</li> <li>• Two Ethernet (RJ-45) 10/100/1000 with Power over Ethernet (PoE)                             <ul style="list-style-type: none"> <li>• One dedicated for direct pairing with the Webex Room Navigator</li> </ul> </li> <li>• Wi-Fi 802.11a/b/g/n/ac 2.4 GHz / 5 GHz for LAN</li> <li>• 2x2 Multiple Input and Multiple Output (MIMO)</li> </ul>
<b>Other interfaces</b>	<ul style="list-style-type: none"> <li>• 2x USB A port, USB-B, uUSB, factory reset pinhole</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>• Autosensing power supply                             <ul style="list-style-type: none"> <li>• 100-240 VAC, 50/60 Hz</li> </ul> </li> <li>• Average power consumption                             <ul style="list-style-type: none"> <li>• 100V 60Hz, 11.73A / 1165W</li> <li>• 240V 50Hz, 5.07A / 1133W</li> </ul> </li> <li>• Power consumption under normal operating conditions is defined in IEC 60950-1</li> </ul>
<b>Operating temperature and humidity</b>	<ul style="list-style-type: none"> <li>• 20% to 90% Relative Humidity (RH)</li> <li>• Maximum operating altitude: 3000 meters (9842 ft.)</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• Cisco Room Panorama (please consult the <a href="#">CAD drawings</a> for more details)                             <ul style="list-style-type: none"> <li>• Width: 165.35 in (4200 mm)</li> <li>• Height: 106.30 in (2700 mm)</li> <li>• Depth: 15.35 in (390 mm)</li> <li>• Weight: 905 kg</li> </ul> </li> <li>• Cisco Room Panorama–Low Ceiling Height Model                             <ul style="list-style-type: none"> <li>• Width: 165.35 in (4200 mm)</li> <li>• Height: 92.5 in (2350 mm)</li> <li>• Depth: 15.35 in (390 mm)</li> </ul> </li> <li>• Packaging                             <ul style="list-style-type: none"> <li>• 4 pallets main system</li> <li>• 1 pallet optional wall finish</li> </ul> </li> </ul>

Table 3. Specifications

SPECIFICATION	DESCRIPTION
<b>Camera overview</b>	<ul style="list-style-type: none"> <li>• 5K Ultra HD camera with 4x 20MP image sensors</li> <li>• Supports up to 1080p60 video out</li> <li>• 4x 20MP image sensors</li> <li>• 1/1.7 CMOS</li> <li>• 5x digital zoom (3 tele-lenses, each with a 50° horizontal field of view)</li> <li>• f/2.0 aperture</li> <li>• 83° horizontal field of view; 51.5° vertical field of view</li> <li>• Auto-framing (audio + face detect)</li> <li>• 5120 x 2880 pixel resolution</li> <li>• Auto focus, brightness, and white balance</li> <li>• Focus distance 1 meter to infinity</li> </ul>

## Regulatory compliance

- Directive 2014/30/EU (EMC Directive) and Directive 2014/35/EU (Low-Voltage Directive) for the non-radio versions
- Directive 2014/53/EU (Radio Equipment Directive) for the radio versions
- Directive 2011/65/EU (RoHS)
- Directive 2002/96/EU (WEEE)
- NRTL approved (product safety)
- FCC listed (radio equipment)

## Standards

- Radio
  - EN 300 328
  - EN 301 893
  - EN 300 440 (only for the radio versions)
- EMC
  - EN 301 489-1 (only for the radio versions)
  - EN 301 489-17 (only for the radio versions)
  - EN 55032–Class A
  - EN 55024
- Safety
  - EN 60950-1 (for radio and non-radio)
  - EN 62368-1 (for radio and non-radio)
  - EN 62479
  - EN 62311 (for the radio versions)
- FCC CFR 47 Part 15B (EMC)–Class A
- FCC CFR 47 Part 15C (RF)
- FCC CFR 47 Part 15E (RF)

Check the Product Approval Status Database at [ciscofax.com](https://www.cisco.com/ciscofax.com) for approval documents per country.

## Ordering information

To place an order, contact your local Cisco representative and refer to Table 4.

**Table 4.** Ordering information

PRODUCT NAME	PART NUMBER	COMPLIANCE MODEL NUMBER
ROOM PANORAMA		
Cisco Room Panorama	CS-ROOM-PANO85-K9	TTC60-33
Cisco Room Panorama, no-radio	CS-ROOM-PANO85-NR-K9	TTC60-33
Cisco Room Panorama, no-radio, no-encryption	CS-ROOM-PANO85-NR-K7	TTC60-33
OPTIONS		
Cisco wall finish in light oak	CS-PANO-WALL-LIGHT	
Cisco Table Microphone	CS-MIC-TABLE-E	
Cisco Multi-Connector Presentation Cable (HDMI to Multi [USB-C, Mini-DP and HDMI] cable 9m)	CAB-HDMI-MULT-9M	
Extension cable for Table Microphone	CAB-MIC-EXT-E	
SPARES		
Cisco Room Panorama spare parts	<a href="#">Link</a>	

## Warranty information

Cisco Room Panorama has a 90-day limited liability warranty.

## Cisco environmental sustainability

Information about Cisco’s environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the “Environment Sustainability” section of Cisco’s [Corporate Social Responsibility](#) (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the “Environment Sustainability” section of the CSR Report) are provided in the following table:

SUSTAINABILITY TOPIC	REFERENCE
Information on product material content laws and regulations	<a href="#">Materials</a>
Information on electronic waste laws and regulations, including products, batteries, and packaging	<a href="#">WEEE compliance</a>

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

## Cisco services and support

Cisco and our partners provide a broad portfolio of smart, personalized services and support that can help you realize the full business value of your Cisco collaboration investment by increasing business agility and network availability. This portfolio of services accelerates business innovation by harnessing the network as a powerful business platform.

For more information about these services, visit: [cisco.com/go/collaborationservices](https://cisco.com/go/collaborationservices).

## Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. [Learn more](#).

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Learn more about

Cisco [Room Panorama](#) or download the [installation guide](#)