

## Boroog New Site Requirements

### A) Physical Security Requirements:

- 1- Secure location for the cabinet near to collaboration endpoint.
- 2- Limited and monitored Access for this Area.
- 3- Boroog cabinets entry/exit records and CCTV monitoring.
- 4- Authorized access to Boroog cabinets within the organization

### B) Passive Requirements:

- 1- Cabinets: 42U or 15U with Fiber and UTP patch panel, dual PDU (two different power sources).
- 2- WAN Circuit and fiber link from the service provider to the cabinet (STC or MIFON).
- 3- UTP connection from the cabinet to the Collaboration Endpoint.
- 4- UPS for Cabinet with 5KVA.
- 5- UTP and Fiber Patch Cords.
- 6- Cooling requirements for all active devices.

### C) Active Equipments Requirements:

- 1- Router C8300-1N1S-4T2X with Dual Power Supply.
- 2- Firewalls options:
  - Palo alto-PA-460 – The firewall must support adding a second power adapter through a different circuit breaker to provide power redundancy and allow for electrical circuit maintenance.
- OR**
- Fortinet-Firewall FG 201F with dual power supply.
- 3- Switch C9300-24P-A or C9300-48P-A: UTP switch with 24 or 48 ports with dual power supplies. And uplinks connecting the Firewall.
- 4- Collaboration Endpoint (choose 1 to 5):
  - Webex Board (70S, 85S)
  - DeskPro (replacement for DX80),
  - Webex Board Pro,
  - Room 55 (Single)
  - KitPro 2mic/qual camera (Note: KitPro needs a TV Screen with an HDMI interface.)

Check if there is any requirement for A/V integration and provide the required cables for this integration.

- 5- All active components should be covered with vendor support for 36 months.

## D) License requirements:

1- Collaboration on-premise 3 Years Subscription for each Endpoint:

- Basic Support for Flex Plan.
- NU Telepresence Room.
- Telepresence Room Smart License.
- On-Premises & Partner Hosted Calling SW Bundle v12.5.

2- Prime infrastructure license 3 Years Subscription for each router and switch.

3- Security License on C8300-1N1S-4T2X router.

4- Threat prevention subscription 3-year prepaid for PA-460

5- Unified Threat Protection 3-year prepaid for FG 201F.

6- Cisco ISE Advantage 3 Years Subscription for each endpoint.

### \*All the licenses need to be added to the Borooq account:

Smart account: nic.gov.sa

Virtual Account: WAN-Borooq

## E) Professional Service Requirements:

The client is responsible for the Installation and commission for all devices as per SDAIA standards.

Borooq is responsible for configuration and testing for all devices as per SDAIA standards.

### Webex Board (70S, 85S) Specifications:

Type	Specifications		
Software	For on-premises deployments – CE9.8 or later		
Components	Fully integrated unit is delivered with: <ul style="list-style-type: none"><li>• Multi-touch (55,70, or 85)-inch LED display</li><li>• 4K camera</li><li>• 12-microphone array</li><li>• Speakers</li><li>• Whiteboarding pen</li></ul>		
Displays	<table border="0"><tr><td><ul style="list-style-type: none"><li>• Edge LED LCD – 70-inch 4K, 300 nits, 16:9</li><li>• Viewing angle: +- 88 degrees (all directions)</li><li>• Response time: 6 ms</li><li>• Number of colors: 1.07 billion (10 bit)</li><li>• Contrast: 1:4000</li></ul></td><td><ul style="list-style-type: none"><li>• Direct LED LCD – 85-inch 4K, 300 nits, 16:9</li><li>• Viewing angle: +- 89 degrees (all directions)</li><li>• Number of colors: 1.07 billion (10-bit)</li><li>• Contrast: 1:4000</li><li>• Response time: 6.5 ms</li></ul></td></tr></table>	<ul style="list-style-type: none"><li>• Edge LED LCD – 70-inch 4K, 300 nits, 16:9</li><li>• Viewing angle: +- 88 degrees (all directions)</li><li>• Response time: 6 ms</li><li>• Number of colors: 1.07 billion (10 bit)</li><li>• Contrast: 1:4000</li></ul>	<ul style="list-style-type: none"><li>• Direct LED LCD – 85-inch 4K, 300 nits, 16:9</li><li>• Viewing angle: +- 89 degrees (all directions)</li><li>• Number of colors: 1.07 billion (10-bit)</li><li>• Contrast: 1:4000</li><li>• Response time: 6.5 ms</li></ul>
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User interface	<ul style="list-style-type: none"><li>• Control the Webex Board from the touch screen</li><li>• Capacitive touch screen with protective glass and optical bonding</li><li>• Multi-touch</li><li>• Optionally use Cisco Touch 10 control unit or Webex Room Navigator</li></ul>		
Bandwidth	<ul style="list-style-type: none"><li>• Up to 6 Mbps point to point</li></ul>		

<b>Minimum bandwidth for resolution/frame rate</b>	<b>Webex Board 70S</b> <ul style="list-style-type: none"> <li>● 720p30 from 768 kbps</li> <li>● 1080p30 from 1472 kbps</li> </ul>	<b>Webex Board 85S</b> <ul style="list-style-type: none"> <li>● 720p30 from 768 kbps</li> <li>● 1080p30 from 1720 kbps</li> </ul>
<b>System management</b>	<ul style="list-style-type: none"> <li>● Webex Board can be managed with Cisco UCM or Expressway</li> </ul>	
<b>Inputs and outputs</b>	<ul style="list-style-type: none"> <li>● HDMI input</li> <li>● Home button</li> <li>● 3.5-mm mini-jack audio out (line out)</li> <li>● USB micro (service)</li> <li>● USB-C for Touch Redirect</li> </ul>	
<b>Encode and decode</b>	Main video: <ul style="list-style-type: none"> <li>● Up to 1920 x 1080@30 (HD1080p)</li> </ul> Presentation sharing: <ul style="list-style-type: none"> <li>● Up to 1920 x 1080@30 (HD1080p)</li> </ul>	

### Webex Board Pro Specifications:

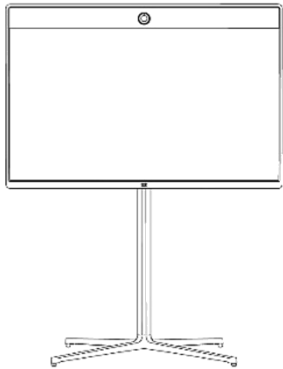
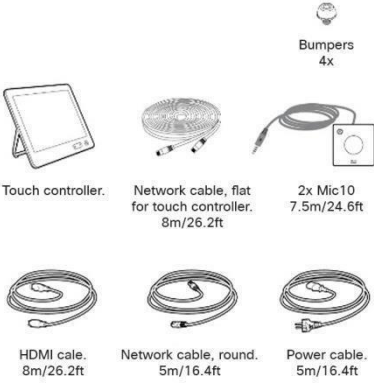
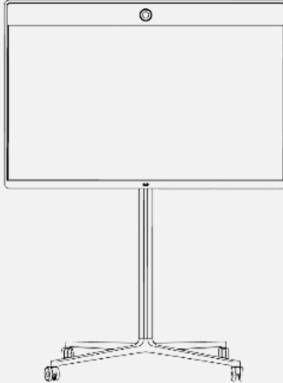
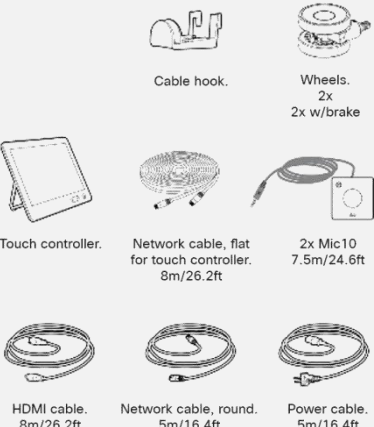
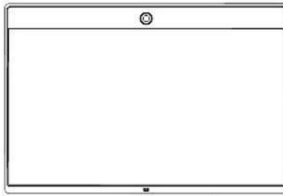
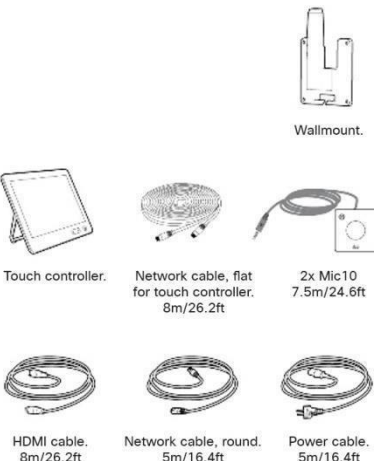
Type	Specifications
<b>Software</b>	RoomOS 10.11 or later for on-premises deployments
<b>Components</b>	<ul style="list-style-type: none"> <li>● Fully integrated main unit is delivered with: <ul style="list-style-type: none"> <li>◦ Multi-touch 55- or 75-inch 4k LED display</li> <li>◦ 2 x 4K camera – wide and main field of view</li> <li>◦ 12 element second generation microphone array</li> <li>◦ Integrated speakers and woofer</li> </ul> </li> <li>● 2 active stylus pens</li> <li>● Wall mount kit or floor stand</li> <li>● Ethernet cable (16,4 feet / 5 meters)</li> <li>● Power cord according to country specified in order</li> </ul>
<b>Displays</b>	<ul style="list-style-type: none"> <li>● Resolution: 4K UHD (3840x2160) /16:9)</li> <li>● Display type: IPS LCD.</li> <li>● Display size in inches: 55" or 75"</li> <li>● Luminance: Typ 350 cd/m2</li> <li>● Viewing angle: +/- 89 degrees (all directions)</li> <li>● Number of colors: 1.07 billion (10bit)</li> <li>● Contrast: 1:1000</li> <li>● Response Time: 8ms</li> </ul>
<b>Optional hardware components</b>	<ul style="list-style-type: none"> <li>● Cisco Table Microphones</li> <li>● Cisco Ceiling Microphone</li> <li>● Webex Room Navigator</li> <li>● Presentation cables</li> <li>● BYOD USB-C 9m cable</li> <li>● Floor stand</li> <li>● Wheel kit for floor stand</li> </ul>
<b>Video standards</b>	<ul style="list-style-type: none"> <li>● H.264 AVC, H.265 HEVC, H.263</li> </ul>

<b>Minimum bandwidth for resolution/frame rate</b>	<ul style="list-style-type: none"> <li>• 720p30 from 768 kbps</li> <li>• 1080p30 from 1472 kbps</li> </ul>
<b>Firewall traversal</b>	<ul style="list-style-type: none"> <li>• Cisco Expressway technology</li> <li>• H.460.18, H.460.19 firewall traversal</li> </ul>
<b>Video inputs</b>	<ul style="list-style-type: none"> <li>• USB-C DisplayPort Alternate Mode up to 3840 x 2160p60 (4Kp60)</li> <li>• HDMI 2.0 type A input supports formats up to 3840 x 2160p30 (4kp30)</li> </ul>
<b>Video outputs</b>	<ul style="list-style-type: none"> <li>• HDMI 2.0 type A</li> </ul>
<b>Audio standards</b>	<ul style="list-style-type: none"> <li>• G.711, G.722, G.722.1, G.729, AAC-LD, and Opus</li> </ul>
<b>Encode and decode</b>	<ul style="list-style-type: none"> <li>• Video stream: Full HD 1080p30</li> <li>• Content stream: 4K 2160p15</li> <li>• Up to 4K content decode from Webex</li> </ul>

**Assembled dimensions (mm [inch])**


<b>Board Pro main unit</b>		
<b>Floor stand</b>		
<b>Wheel upgrade kit</b>		
<b>Wall mount</b>		

**Room 55 (single) specifications:**

Specification	Description	
<b>Software compatibility</b>	<ul style="list-style-type: none"> <li>• Cisco Collaboration Endpoint Software Version 9.1.1 or later, and Cisco Webex Room OS</li> </ul>	
<b>Default components in Cisco Webex Room 55 with:</b>		
<b>Floor stand</b>		 <p>Bumpers 4x</p> <p>Touch controller.</p> <p>Network cable, flat for touch controller. 8m/26.2ft</p> <p>2x Mic10 7.5m/24.6ft</p> <p>HDMI cable. 8m/26.2ft</p> <p>Network cable, round. 5m/16.4ft</p> <p>Power cable. 5m/16.4ft</p>
<b>Wheel base</b>		 <p>Cable hook.</p> <p>Wheels. 2x 2x w/brake</p> <p>Touch controller.</p> <p>Network cable, flat for touch controller. 8m/26.2ft</p> <p>2x Mic10 7.5m/24.6ft</p> <p>HDMI cable. 8m/26.2ft</p> <p>Network cable, round. 5m/16.4ft</p> <p>Power cable. 5m/16.4ft</p>
<b>Wall mount</b>		 <p>Wallmount.</p> <p>Touch controller.</p> <p>Network cable, flat for touch controller. 8m/26.2ft</p> <p>2x Mic10 7.5m/24.6ft</p> <p>HDMI cable. 8m/26.2ft</p> <p>Network cable, round. 5m/16.4ft</p> <p>Power cable. 5m/16.4ft</p>

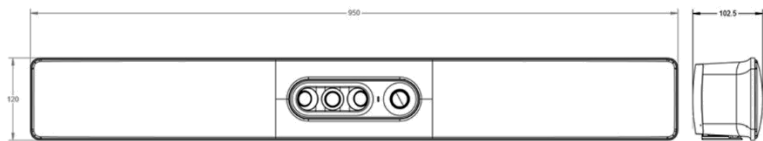
<b>Optional hardware components</b>	<ul style="list-style-type: none"> <li>• Microphone extension cable</li> <li>• HDMI presentation cable 8m/26.2 ft.</li> </ul>
<b>Bandwidth</b>	<ul style="list-style-type: none"> <li>• Up to 6 Mbps point-to-point</li> </ul>
<b>Minimum bandwidth for resolution/frame rate</b>	<p>H.264:</p> <ul style="list-style-type: none"> <li>• 720p30 from 768 kbps</li> <li>• 720p60 from 1152 kbps</li> <li>• 1080p30 from 1472 kbps</li> <li>• 1080p60 from 2560 kbps</li> </ul>
<b>Firewall traversal</b>	<ul style="list-style-type: none"> <li>• Cisco Expressway™ technology</li> <li>• H.460.18, H.460.19 firewall traversal</li> </ul>
<b>Video standards</b>	<ul style="list-style-type: none"> <li>• H.264</li> <li>• H.265</li> </ul>
<b>Video inputs</b>	<ul style="list-style-type: none"> <li>• Two HDMI input supports formats up to maximum 4K (3840 x 2160) at 30 fps, including HD1080p60; HDMI 2 supports HDCP content for local viewing</li> <li>• Consumer Electronics Control (CEC) 2.0</li> </ul>
<b>Video outputs</b>	<ul style="list-style-type: none"> <li>• One HDMI output supports formats up to 3840 x 2160 at 60 fps (4Kp60)</li> <li>• Live video resolutions (encode and decode) up to 1920 x 1080 at 30, 60 fps (HD1080p)</li> <li>• Consumer Electronics Control (CEC) 2.0</li> </ul>
<b>Audio standards</b>	<ul style="list-style-type: none"> <li>• G.711, G.722, G.722.1, G.729, AAC-LD, and Opus</li> </ul>
<b>Audio features</b>	<ul style="list-style-type: none"> <li>• High-quality 20-kHz audio</li> <li>• Prepared for inductive loop (line out)</li> <li>• Automatic Gain Control (AGC)</li> <li>• Automatic noise reduction</li> <li>• Active lip synchronization</li> </ul>

## DeskPro Specifications:

Specifications	Description
<b>Software compatibility</b>	<ul style="list-style-type: none"> <li>• Cisco Collaboration Endpoint Software Version 9.12 (CE9.12) or later, or Cisco Webex RoomOS</li> </ul>
<b>Default components shipped with Webex Desk Pro</b>	<ul style="list-style-type: none"> <li>• Desk Stand</li> <li>• Stylus with two spare tips</li> <li>• Network cable 3m/118 in</li> <li>• USB-C cable (see USB-C BYOD section for details), 1.8 m/70.8 in</li> <li>• HDMI 2.0 presentation cable 1.5 m/59 in</li> <li>• Power supply Cisco Desk Pro</li> </ul>
<b>Optional hardware components</b>	<ul style="list-style-type: none"> <li>• VESA adapter and wall mount kit</li> <li>• Replaceable metal speaker grille</li> </ul>
<b>Display</b>	<ul style="list-style-type: none"> <li>• 27 inch LCD monitor</li> <li>• 4k resolution (3840x2160) (16:9)</li> <li>• High-contrast IPS LED panel</li> <li>• Contrast ratio: 1000:1 (typical)</li> <li>• Viewing angle: +/- 89° (typical)</li> <li>• Brightness 300 cd/m2</li> <li>• Color depth 1.07B colors</li> <li>• Color gamut 72% NTSC (100% sRGB)</li> </ul>
<b>User interface</b>	<ul style="list-style-type: none"> <li>• Projected capacitive touch</li> <li>• Optically bonded cover glass</li> <li>• Multi-touch</li> </ul>
<b>Supported PC resolutions</b>	<ul style="list-style-type: none"> <li>• 1080p60, 1440p60, 2160p30 (4K) and 2160p60 (4K)</li> </ul>
<b>Camera</b>	<ul style="list-style-type: none"> <li>• 4k Ultra HD camera</li> <li>• 71° horizontal field of view, 59° vertical field of view</li> <li>• f/2.0 aperture</li> <li>• 12 MP image sensor, supports up to 30 fps</li> <li>• 1/2.8" CMOS, Dual Pixel Technology</li> <li>• Automatic tilt adjustment</li> <li>• Automatic focus, brightness and white balance</li> <li>• Focus distance 20 cm to infinity</li> <li>• Privacy shutter with LED light</li> </ul>
<b>Dimensions</b>	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>• Width 24.8 in. (63 cm)</li> <li>• Height 20.1 in. (51 cm)</li> <li>• Depth 3 in. (7.5 cm)</li> <li>• Weight 24.4 lb. (11.6 kg)</li> </ul> <p><b>When packaged</b></p> <ul style="list-style-type: none"> <li>• Width 30.7 in. (78 cm)</li> <li>• Height 30.7 in. (78 cm)</li> <li>• Depth 8.6 in. (22 cm)</li> </ul>

- Weight 35.2 lb. (16 kg)

## KitPro Specifications:

Specification	Description
<b>Software compatibility</b>	<ul style="list-style-type: none"> <li>• Cisco Collaboration Endpoint (CE) Software Version 9.4 or later, or Cisco Webex Room OS</li> </ul>
<b>Default components in Room Kit Pro</b>	<ul style="list-style-type: none"> <li>• Cisco Webex Codec Pro</li> <li>• Cisco Webex Quad Camera (a package is also available with the Precision 60 camera)</li> <li>• Cisco Touch 10 control unit</li> <li>• Wall mount for Quad Camera</li> </ul>
<b>Optional hardware components</b>	<ul style="list-style-type: none"> <li>• Cisco Table Microphone (with Euroblock plug), wall mount for Codec Pro, rack mount for Codec Pro, various cables</li> </ul>
<b>Bandwidth</b>	<ul style="list-style-type: none"> <li>• Up to 6 Mbps point-to-point</li> </ul>
<b>Minimum bandwidth for resolution/frame rate</b>	<ul style="list-style-type: none"> <li>• 720p30 from 768 kbps</li> <li>• 720p60 from 1152 kbps</li> <li>• 1080p30 from 1472 kbps</li> <li>• 1080p60 from 2560 kbps</li> </ul>
<b>Firewall traversal</b>	<ul style="list-style-type: none"> <li>• Cisco Expressway™ technology H.460.18, H.460.19 firewall traversal</li> </ul>
<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>Dimensions</b>	 <p>Quad Camera:</p> <ul style="list-style-type: none"> <li>• Width: 37.4 in. (95.0 cm)</li> <li>• Height: 4.7 in. (12.0 cm)</li> <li>• Depth: 4.0 in. (10.3 cm)</li> <li>• Weight: 10.6 lb (4.8 kg)</li> </ul>
<b>Speakers (Quad Camera)</b>	<ul style="list-style-type: none"> <li>• High-quality speakers</li> <li>• Frequency response 70 Hz to 20 kHz</li> <li>• Max output level SPL 90 dB</li> </ul>
<b>Speaker tracking (Quad Camera, SpeakerTrack 60)</b>	<ul style="list-style-type: none"> <li>• 6-element microphone array for accurate speaker tracking</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>



F) Suggested Network Diagram:



Figure 1: Simple Network Diagram