

WCAG 2.1

Compliance Report

Customer Widget — Interactive Customer Support Chat Interface

● Partially Compliant

REPORT DATE

April 27, 2026

FRAMEWORK

Angular 14+ / Material

NEXT REVIEW

July 27, 2026

EXEC

Executive Summary

This report evaluates the Customer Widget against WCAG 2.1 Level AA standards across all four POUR principles — Perceivable, Operable, Understandable, and Robust. The product demonstrates strong foundational accessibility with well-implemented keyboard navigation, ARIA markup, and multilingual support. Several areas require remediation before full AA compliance can be declared.

✓ **Strengths:** Keyboard navigation · ARIA implementation · Multilingual support

⚠ **Priority Areas:** Form labeling · Focus management · Alt text · Contrast

1.1.1.1 **Non-text Content**

✓ Pass · Level A

- ✓ Images use descriptive alt text via translation keys
- ✓ SVG icons implemented with proper title attributes
- ✓ Bot and user avatars carry appropriate alternative text
- ✓ Decorative images are marked or hidden from AT

RECOMMENDATIONS

- Ensure dynamically uploaded images receive alt text from submitting users
- Implement automated alt-text fallback for image attachments

1.2.1–1.2.5 **Time-based Media**

△ Partial · Level A-AA

- ⚠ Video captions not fully implemented for live calls
- ⚠ Audio description support absent for visual content
- ✓ Pre-recorded audio content provides text alternatives

RECOMMENDATIONS

- Implement closed captioning for video call functionality
- Add audio description tracks for any visual-only content
- Provide downloadable transcripts for audio messages

- ✓ Semantic HTML with proper heading hierarchy
- ✓ ARIA landmarks and roles correctly applied
- ✓ Form fields use explicit label associations
- ⚠ Some custom components need additional ARIA markup

```
<label [attr.for]="attribute.key">
  <span>{{ attribute.label }}</span>
  <span *ngIf="attribute?.isRequired" class="widget-required">*</span>
</label>
<input [formControlName]="attribute.key" [required]="attribute?.isRequired">
```

RECOMMENDATIONS

- Enhance custom dropdown components with full ARIA combobox pattern
- Add `dir="rtl"` orientation support for Arabic language

- ✓ Color is not the sole conveyor of information
- ✓ Error messages now meet contrast requirements
- ✓ Text resizable to 200% without assistive tech
- ⚠ Placeholder text (light gray) still fails contrast
- ⚠ Disabled button states have insufficient contrast

```
/* Recommended contrast fixes */
::placeholder {
  color: #757575; /* ratio 4.5:1 ✓ */
}
button:disabled {
  background-color: #e0e0e0;
  color: #616161; /* ratio 4.5:1 ✓ */
  opacity: 0.6;
}
```

2.1.1–2.1.4 **Keyboard Accessible**

△ Partial · Level A–AA

- ✓ All functionality accessible via keyboard
- ✓ No keyboard traps detected
- ✓ Focus order is logical and meaning-preserving
- ⚠ Some custom controls need enhanced keyboard support

```
(keydown)="$event.key === 'Enter' || $event.key === ' ' ) && toggleCallVideo(tooltip1)"  
(keydown.enter)="toggleCallMic(tooltip) "  
(keydown.space)="toggleCallMic(tooltip) "
```

RECOMMENDATIONS

- Add shortcut keys for common actions (e.g. Ctrl+Enter to send)
- Enhance emoji picker with full keyboard navigation
- Add skip links for screen reader users

2.2.1–2.2.2 **Enough Time**

△ Partial · Level A

- ✓ Session timeout warnings implemented; time extendable
- ✓ Auto-updating content can be paused
- ⚠ Some auto-refresh features lack pause controls

2.3.1 **Seizures and Physical Reactions**

✓ Pass · Level A

- ✓ No content flashes more than 3 times per second
- ✓ Animation can be disabled via system preferences

- ✓ Bypass blocks available; page titles descriptive
- ✓ Focus order preserves meaning and sequence
- ⚠ Some link text needs improvement for out-of-context clarity

3.1.1–3.1.6 **Readable**

✓ Pass · Level A–AA

- ✓ Page language programmatically determined
- ✓ Multilingual support: English, Arabic, Bulgarian
- ✓ RTL layout applied for Arabic via [ngClass]

```
<html lang="en">  
<div class="top-wrapper" [ngClass]="{'right-direction': selectedLanguage == 'ar'}">
```

3.2.1–3.2.4 **Predictable**

✓ Pass · Level A–AA

- ✓ Focus does not change context unexpectedly
- ✓ Navigation patterns are consistent throughout
- ✓ Input assistance provided consistently

3.3.1–3.3.6 **Input Assistance**

⚠ Partial · Level A–AA

- ✓ Error identification is specific and actionable
- ✓ Labels and instructions consistently provided
- ⚠ Some error messages need improved contextual clarity

```
<span *ngIf="preChatFormGroup.get(attribute.key)?.hasError('required')" class="field-error">  
  {{ getLabel(attribute.valueType) + ' ' + ('error.is-required' | translate) }}  
</span>
```

4.1.1–4.1.3 **Compatible**

✓ Pass · Level A–AA

- ✓ Valid HTML markup used throughout; no parsing errors
- ✓ Name, role, and value programmatically determined
- ✓ Status messages properly announced to AT

```
<button matMiniFab aria-label="minimize conversation"
  matTooltip="{{'button.minimize' | translate}}">
  <mat-icon>remove</mat-icon>
</button>
```

RECOMMENDATIONS

- Schedule regular AT regression testing (NVDA, JAWS, VoiceOver)
- Integrate axe-core into CI/CD pipeline for automated checks

Critical Issues Requiring Attention

#	ISSUE	IMPACT	PRIORITY
01	Placeholder Text Contrast Light gray placeholder color fails 4.5:1 ratio requirement	Users with low vision cannot read input hints	Medium
02	Disabled Button States Insufficient contrast ratio on disabled interactive elements	Visual impairment users miss actionable state cues	Medium
03	Form Label Associations Custom input and file-upload components lack explicit labels	Screen reader users cannot determine field purpose	High
04	Modal Focus Management Focus not consistently trapped/restored in modal dialogs	Keyboard users lose context during interactions	Medium
05	Video Captions Live video call captions not fully implemented	Deaf/hard-of-hearing users cannot follow video calls	High

• Automated Tools

- axe-core automated scanning
- WAVE accessibility evaluation
- Color contrast analyzers

• Manual Testing

- Keyboard-only navigation
- High contrast mode
- Text scaling up to 200%
- Mobile accessibility testing

• Screen Readers

- NVDA & JAWS (Windows)
- VoiceOver (macOS/iOS)
- TalkBack (Android)

• Assistive Tech

- Dragon NaturallySpeaking
- Windows Magnifier & ZoomText
- OS switch access controls

WCAG 2.1 AA Success Criteria Checklist

PRINCIPLE	SUCCESS CRITERIA	STATUS	PRIORITY
Perceivable	1.1.1 Non-text Content	✓ Pass	Low
Perceivable	1.2.1 Audio-only / Video-only	△ Partial	Medium
Perceivable	1.2.2 Captions (Prerecorded)	△ Partial	High
Perceivable	1.2.3 Audio Description	△ Partial	High
Perceivable	1.3.1 Info and Relationships	✓ Pass	Low
Perceivable	1.3.2 Meaningful Sequence	✓ Pass	Low
Perceivable	1.3.3 Sensory Characteristics	✓ Pass	Low
Perceivable	1.4.1 Use of Color	△ Partial	High
Perceivable	1.4.2 Audio Control	✓ Pass	Low
Perceivable	1.4.4 Resize Text	✓ Pass	Low
Perceivable	1.4.5 Images of Text	✓ Pass	Low
Operable	2.1.1 Keyboard	✓ Pass	Low
Operable	2.1.2 No Keyboard Trap	✓ Pass	Low
Operable	2.1.4 Character Key Shortcuts	△ Partial	Medium
Operable	2.2.1 Timing Adjustable	✓ Pass	Low
Operable	2.2.2 Pause, Stop, Hide	△ Partial	Medium
Operable	2.3.1 Three Flashes or Below	✓ Pass	Low
Operable	2.4.1 Bypass Blocks	✓ Pass	Low
Operable	2.4.2 Page Titled	✓ Pass	Low
Operable	2.4.3 Focus Order	✓ Pass	Low
Operable	2.4.4 Link Purpose	△ Partial	Medium
Operable	2.4.5 Multiple Ways	✓ Pass	Low
Operable	2.4.6 Headings and Labels	✓ Pass	Low
Operable	2.4.7 Focus Visible	✓ Pass	Low
Understandable	3.1.1 Language of Page	✓ Pass	Low
Understandable	3.1.2 Language of Parts	✓ Pass	Low
Understandable	3.2.1 On Focus	✓ Pass	Low

PRINCIPLE	SUCCESS CRITERIA	STATUS	PRIORITY
Understandable	3.2.2 On Input	✓ Pass	Low
Understandable	3.2.3 Consistent Navigation	✓ Pass	Low
Understandable	3.2.4 Consistent Identification	✓ Pass	Low
Understandable	3.3.1 Error Identification	✓ Pass	Low
Understandable	3.3.2 Labels or Instructions	✓ Pass	Low
Understandable	3.3.3 Error Suggestion	✓ Pass	Low
Understandable	3.3.4 Error Prevention	✓ Pass	Low
Robust	4.1.1 Parsing	✓ Pass	Low
Robust	4.1.2 Name, Role, Value	✓ Pass	Low
Robust	4.1.3 Status Messages	✓ Pass	Low