```
"screen_awareness": {
  "enabled": true,
  "privacy_focused": true,
  "recognition_methods": {
   "app_identification": true,
   "content_type_detection": true,
  "activity_classification": true,
  "text_recognition": true,
  "element_identification": true
 }.
  "privacy_safeguards": {
  "no_data_transmission": true,
   "sensitive_content_filtering": true,
   "user_control": true,
   "temporary_processing": true,
  "excluded_apps": ["banking", "healthcare",
"password_managers"]
 }.
  "contextual_modes": {
  "browsing": {
   "enabled": true.
   "triggers": ["web browser active", "search activity"],
   "capabilities": ["information enhancement", "related content
suggestions"]
  },
   "social_media": {
   "enabled": true,
   "triggers": ["social app active", "content creation screen"],
   "capabilities": ["caption suggestions", "hashtag
```

```
recommendations", "trend awareness"]
  },
   "productivity": {
    "enabled": true,
    "triggers": ["document editing", "email composition", "note
taking"],
    "capabilities": ["text enhancement", "formatting
suggestions", "research assistance"]
   },
   "entertainment": {
    "enabled": true,
    "triggers": ["video playing", "music active", "game running"],
    "capabilities": ["related content", "controls assistance",
"information lookup"]
   },
   "photography": {
    "enabled": true,
    "triggers": ["camera active", "photo editing", "gallery viewing"],
    "capabilities": ["shot suggestions", "editing tips",
"organization help"]
   }
  }
 }.
 "contextual_understanding": {
  "current_context": {
   "app": null,
   "activity": null,
   "content_type": null,
   "screen_elements": [],
   "recognized_text": null,
```

```
"time_in_context": 0
 },
  "context_history": {
  "max_entries": 10,
  "current_entries": 0,
  "entries": []
 },
  "context_memory": {
  "short_term": {
   "duration": 300, // seconds
   "capacity": 5
  },
  "medium_term": {
    "duration": 3600, // seconds
   "capacity": 10
  },
   "long_term": {
   "conditions": ["repeated exposure", "explicit save", "high
relevance"],
   "capacity": 50
  }
 }.
  "context_processing": {
   "update_frequency": "on_change",
  "minimum_update_interval": 1, // seconds
  "background_processing": true,
  "priority_when_idle": true
 },
 "context_handlers": {
```

```
"social_media": {
   "TikTok": {
    "screens": {
     "feed_browsing": {
     "recognizable_elements": ["video player", "like button",
"comment section", "user profile"],
      "detectable_activities": ["watching", "scrolling",
"interaction"],
      "assistance_capabilities": ["trend identification", "content
suggestions", "caption generation"]
     }.
     "content_creation": {
     "recognizable_elements": ["record button", "effects panel",
"text tool", "post button"],
      "detectable_activities": ["recording", "editing", "adding
text", "adding effects"],
      "assistance_capabilities": ["effect suggestions", "timing
tips", "trend alignment", "caption generation"]
     }.
     "profile_viewing": {
      "recognizable_elements": ["follower count", "following
count", "video grid", "profile bio"],
     "detectable_activities": ["viewing statistics", "watching
profile videos", "reading bio"],
      "assistance_capabilities": ["engagement tips", "content
strategy suggestions", "profile optimization"]
     }
    }.
    "content_awareness": {
     "hashtag_detection": true,
```

```
"trend_alignment": true,
     "content_categorization": true,
    "audience_analysis": true
  },
   "İnstagram": {
   "screens": {
    "feed_browsing": {
     "recognizable_elements": ["photo/video", "like button",
"comment section", "user handle"],
     "detectable_activities": ["viewing", "scrolling",
"interaction"],
     "assistance_capabilities": ["caption suggestions", "hashtag
recommendations"]
    },
    "story_creation": {
     "recognizable_elements": ["camera", "text tool", "sticker
panel", "drawing tools"],
     "detectable_activities": ["capturing", "editing", "adding
elements"].
     "assistance_capabilities": ["creative suggestions",
"engagement boosters"]
  }
 }.
  "productivity": {
   "document_editing": {
    "screens": {
    "text_document": {
```

```
"recognizable_elements": ["text area", "formatting toolbar",
"cursor position"],
      "detectable_activities": ["typing", "formatting", "reviewing"],
      "assistance_capabilities": ["writing suggestions",
"formatting help", "research assistance"]
     },
     "spreadsheet": {
     "recognizable_elements": ["cells", "formula bar", "sheet
tabs"],
      "detectable_activities": ["data entry", "formula creation",
"analysis"],
      "assistance_capabilities": ["formula suggestions", "data
analysis tips", "formatting recommendations"]
    }
  },
   "email": {
   "screens": {
     "composition": {
      "recognizable_elements": ["to field", "subject line",
"message body", "send button"],
      "detectable_activities": ["writing", "addressing",
"attaching"],
     "assistance_capabilities": ["response suggestions", "tone
recommendations", "follow-up reminders"]
     }
    }
  }
 }
 },
```

```
"contextual_actions": {
 "suggestion_generation": {
  "based_on_screen": true,
  "based_on_activity": true,
 "based_on_content": true,
  "based_on_history": true,
 "suggestion_threshold": 0.7,
 "max_suggestions": 3,
 "presentation_style": "unobtrusive"
},
 "proactive_assistance": {
 "enabled": true,
 "intrusiveness_level": "minimal",
  "trigger_threshold": 0.85,
  "cooldown_period": 300, // seconds
 "user_control": true
}.
 "response_adaptation": {
  "context_aware_responses": true,
  "include_contextual_details": true,
  "adapt_vocabulary": true,
  "adapt_complexity": true,
  "adapt_tone": true
},
"ghost_processing": {
 "screen_capture": {
 "method": "accessibility_api",
 "frequency": "on_change",
  "resolution": "low",
```

```
"storage_duration": 5, // seconds
 "processing_location": "on_device_only"
"element_processing": {
"method": "element_tree_analysis",
 "detaĭl_level": "structural",
 "semantic_understanding": true,
"processing_location": "on_device_only"
},
"ocr_processing": {
 "enabled": true,
 "selective_regions": true,
 "confidence_threshold": 0.8,
"processing_location": "on_device_only"
}
```

}