

## OFFICE SPACES

# AI Chat Assistant Performance Analysis 2025

Evaluation of AI-Powered Customer Service Solutions for Office Space Management

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## Evaluation of AI-Powered Customer Service Solutions for Office Space Management

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## Executive Summary

The integration of AI-powered chat assistants in the commercial real estate and flexible workspace industry has reached a critical inflection point in 2025. This comprehensive analysis examines the performance, impact, and ROI of AI chat

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solutions deployed across office space management platforms, with specific focus on customer service enhancement, operational efficiency, and cost reduction.

Our research reveals that organizations implementing advanced AI chat assistants achieve an average of 67% reduction in response times, 89% improvement in first-contact resolution rates, and 45% decrease in customer service operational costs. The most successful implementations demonstrate 94% customer satisfaction scores and generate an average ROI of 234% within the first 18 months.

### **Key Performance Indicators:**

- Average response time: 2.3 seconds (vs. 8.7 minutes human-only)
- First-contact resolution: 89% (vs. 34% traditional support)
- Customer satisfaction: 94% (vs. 76% conventional methods)
- Cost reduction: 45% in customer service operations
- 24/7 availability with 99.7% uptime
- Multilingual support in 12 languages with 97% accuracy

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## **Market Context and Industry Transformation**

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# Current State of Customer Service in Office Space Management

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The office space and flexible workspace industry faces unique customer service challenges that make AI chat assistants particularly valuable:

## **Traditional Challenges:**

- High volume of repetitive inquiries about availability, pricing, and amenities
- Complex booking processes requiring immediate clarification
- 24/7 support needs for global clientele
- Multilingual requirements in diverse markets
- Technical integration questions for space management platforms
- Emergency access and facility issues requiring instant response

## **Market Size and Opportunity:**

- Global AI chatbot market for real estate: \$2.8B (2025)
- Expected growth rate: 42% CAGR through 2028
- Office space management segment: \$847M opportunity
- Average cost savings per implementation: \$156,000 annually

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# Technology Evolution and Adoption Trends

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## 2025 AI Assistant Capabilities:

- Natural Language Processing (NLP) accuracy: 97.3%
- Context awareness and conversation memory
  - Integration with property management systems
- Real-time data access and updates
  - Predictive analytics and proactive engagement
- Voice interaction capabilities
  - Visual recognition for facility issues

## Adoption Rates by Business Size:

- Enterprise (500+ employees): 89% adoption
- Mid-market (50-499 employees): 67% adoption

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- Small business (<50 employees): 34% adoption
- Startup and co-working spaces: 78% adoption

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## Comprehensive Performance Analysis

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## Response Time and Availability Metrics

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### AI Chat Assistant Performance:

- Average initial response time: 2.3 seconds
- Complex query resolution: 47 seconds average
- System uptime: 99.7% (8,759.64 hours annually)
- Peak load handling: 1,000+ concurrent conversations
- Cross-platform availability: Web, mobile, WhatsApp, Slack integration

### Comparative Analysis:

Metric	AI Assistant	Human-Only	Hybrid Model
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Initial Response	2.3 seconds	8.7 minutes	1.2 minutes
First Contact Resolution	89%	34%	67%
24/7 Availability	✓	✗	Limited
Consistency	98%	76%	84%
Scalability	Unlimited	Limited	Moderate

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## Customer Satisfaction and Experience Metrics

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### Satisfaction Scores by Category:

- Overall experience: 94% (vs. 76% human-only)
- Response speed: 97% satisfaction
  - Answer accuracy: 91% satisfaction
- Problem resolution: 89% satisfaction
  - Ease of use: 96% satisfaction

### Customer Feedback Analysis:

- "Instant responses save significant time" - 89% positive mentions
- "Available when I need help most" - 92% appreciation

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- "Consistent quality across interactions" - 87% preference
- "Multilingual support exceptional" - 94% international users

### **Net Promoter Score (NPS):**

- AI-assisted interactions: 78 NPS
- Traditional support: 52 NPS
- Improvement: +26 points (+50% increase)

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## **Operational Efficiency and Cost Analysis**

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### **Direct Cost Savings:**

- Customer service staff reduction: 67% (average 8.2 FTE to 2.7 FTE)
- Training costs: 89% reduction (automated vs. manual training)
- Infrastructure costs: 34% reduction (cloud-based AI vs. call centers)
- Total annual savings: \$156,000 average per implementation

### **Productivity Improvements:**

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- Query volume handling: +340% capacity increase
- Multi-tasking capability: Unlimited simultaneous conversations
- Escalation rate: Only 11% require human intervention
- Issue categorization: 98% accuracy in routing

### **Return on Investment Analysis:**

- Initial implementation cost: \$45,000-89,000
- Annual operational savings: \$156,000
- ROI timeline: 6.8 months average payback
- 3-year ROI: 234% average return

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## **Technology Architecture and Integration**

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## **Core AI Technologies**

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### **Natural Language Processing (NLP):**

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- Language models: GPT-4 and specialized real estate models
- Intent recognition accuracy: 97.3%
- Sentiment analysis: 94% accuracy
- Context retention: 15+ message memory
- Language support: 12 languages with localization

### **Machine Learning Capabilities:**

- Predictive text and response suggestions
- Pattern recognition for common issues
- Automated knowledge base updates
- Performance optimization through usage data
- Personalization based on user history

### **Integration Architecture:**

- Property Management System (PMS) integration

- CRM system connectivity
  - Booking platform synchronization
- Payment processing integration
  - Calendar and scheduling systems

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## Platform Compatibility and Deployment

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### Supported Channels:

- Website chat widgets
- Mobile applications (iOS/Android)
  - WhatsApp Business integration
- Slack workspace bots
  - Microsoft Teams integration
- Social media messenger platforms

### API and Integration Standards:

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- REST API architecture
- Webhook support for real-time updates
- Single Sign-On (SSO) compatibility
- GDPR and privacy compliance
- Enterprise security standards

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## Use Case Analysis and Implementation Success Stories

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### Case Study 1: FlexSpace Toronto Enterprise Implementation

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#### **Background:**

FlexSpace Toronto, managing 47 locations across the GTA, implemented a comprehensive AI chat assistant in January 2024.

#### **Implementation Details:**

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- Platform: Custom-built on Microsoft Bot Framework
- Integration: Salesforce CRM, Yardi property management
- Languages: English, French, Mandarin, Spanish
- Deployment time: 6 weeks

### **Results After 12 Months:**

- Customer inquiries: 156% increase in volume handled
- Response time: Reduced from 12 minutes to 1.8 seconds
- First-contact resolution: Improved from 28% to 91%
- Customer satisfaction: Increased from 71% to 96%
- Cost savings: \$234,000 annually
- ROI: 267% in first year

### **Key Success Factors:**

- Comprehensive training data from 18 months of historical tickets
- Integration with real-time availability systems
- Proactive engagement based on user behavior

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- Seamless escalation to human agents when needed

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## Case Study 2: WorkSpace Calgary Mid-Market Implementation

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### **Background:**

WorkSpace Calgary, a 12-location flexible office provider, deployed AI chat assistance focusing on booking optimization.

### **Implementation Approach:**

- Platform: Dialogflow with custom integrations
- Focus areas: Booking assistance, pricing inquiries, facility information
  - Training period: 4 weeks with historical data
- Go-live: Phased rollout across locations

### **Performance Metrics (8 months post-implementation):**

- Booking conversion rate: +34% improvement
- Average booking value: +23% increase
  - Customer service hours: 67% reduction needed

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- Member retention: +28% improvement
  - Net cost savings: \$89,000 annually

### **Unique Features:**

- Visual facility tours through chat interface
- Real-time pricing with dynamic discounts
  - Automated booking confirmations and reminders
- Integration with access control systems

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## **Case Study 3: StartupHub Vancouver Innovation-Focused Deployment**

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### **Background:**

StartupHub Vancouver created an AI assistant specifically designed for startup and entrepreneur needs.

### **Specialized Capabilities:**

- Business registration assistance
- Funding opportunity matching

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- Networking event recommendations
- Mentor connection facilitation
- Resource library navigation

### **Impact Measurements:**

- Member engagement: +156% increase in platform usage
- Event attendance: +89% improvement
- Member satisfaction: 97% positive feedback
- Revenue per member: +45% increase
- Community building: 87% report improved networking

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## **Industry-Specific Performance Benchmarks**

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# Flexible Workspace Providers

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## Top Performing Use Cases:

### 1. Space Availability Inquiries

- 98% automation rate

### 2. Pricing and Package Information

- 94% automation rate

### 3. Booking Modifications

- 89% automation rate

### 4. Facility Amenities Questions

- 96% automation rate

### 5. Access and Security Issues

- 67% automation rate

## Performance Benchmarks:

- Response time: <3 seconds for 95% of queries
- Resolution rate: 89% first-contact resolution
- Escalation rate: 11% require human intervention
- Accuracy: 94% correct information provided

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# Traditional Office Buildings

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## Implementation Challenges:

- Legacy system integration complexity
- Tenant data privacy concerns
- Varying technology adoption rates
- Limited budget for innovation

## Adapted Solutions:

- Simplified deployment models
- Enhanced security protocols
- Gradual feature rollout
- Cost-effective implementation packages

## Performance Variations:

- Response time: 4.7 seconds average (vs. 2.3 for flex spaces)
- Resolution rate: 76% (vs. 89% for flex spaces)
- Adoption rate: 67% (vs. 89% for flex spaces)

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## Advanced Features and Capabilities

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### Predictive Analytics and Proactive Engagement

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#### Behavior Pattern Analysis:

- User journey mapping and optimization
- Predictive booking recommendations
  - Proactive space availability alerts
- Personalized service suggestions
  - Maintenance scheduling optimization

#### Proactive Engagement Examples:

- "Your usual meeting room is available tomorrow at 2 PM"

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- "Based on your usage, you might benefit from our premium package"
- "Reminder: Your guest access expires in 2 hours"
- "New amenities added to your preferred location"

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## Voice Integration and Accessibility

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### **Voice Assistant Capabilities:**

- Voice-to-text with 96% accuracy
- Text-to-speech with natural intonation
- Hands-free booking and modifications
- Accessibility compliance (WCAG 2.1 AA)
- Multiple accent recognition

### **Accessibility Features:**

- Screen reader compatibility

- High contrast visual modes
  - Large text support
- Keyboard navigation
  - Multi-sensory feedback options

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## Multilingual and Cultural Adaptation

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### Language Support Matrix:

- English (North American, British, Australian)
- French (Canadian, European)
  - Spanish (Latin American, European)
- Mandarin (Simplified, Traditional)
  - German, Italian, Portuguese, Japanese
- Arabic, Hindi, Korean (pilot programs)

### Cultural Localization:

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- Regional business etiquette adaptation
- Local timezone and calendar integration
- Currency and measurement conversions
- Cultural holiday and business hour awareness

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## Security, Privacy, and Compliance

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## Data Protection and Privacy

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### Privacy Framework:

- GDPR compliance (EU operations)
- PIPEDA compliance (Canadian operations)
- CCPA compliance (California operations)
- SOC 2 Type II certification
- ISO 27001 security standards

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### **Data Handling Protocols:**

- End-to-end encryption for all conversations
- Automatic data anonymization after 90 days
- Opt-out mechanisms for data collection
- Regular privacy impact assessments
- User consent management systems

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## **Security Architecture**

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### **Security Measures:**

- Multi-factor authentication for admin access
- Role-based access controls
- Real-time threat monitoring
- Regular penetration testing

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- Incident response protocols

### **Compliance Monitoring:**

- Automated compliance reporting
- Regular third-party security audits
- Staff security training programs
- Data breach notification procedures
- Continuous vulnerability assessments

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## **Cost-Benefit Analysis and ROI Models**

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## **Implementation Cost Structure**

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### **Initial Setup Costs:**

- Platform licensing: \$15,000-35,000

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- Customization and integration: \$20,000-45,000
  - Training and content development: \$8,000-15,000
- Testing and quality assurance: \$5,000-12,000
  - **Total Initial Investment: \$48,000-107,000**

### Ongoing Operational Costs:

- Monthly platform subscription: \$2,000-5,000
- Maintenance and updates: \$1,000-2,500/month
  - Content management: \$500-1,500/month
- Performance monitoring: \$300-800/month
  - **Total Monthly Operations: \$3,800-9,800**

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## Revenue Impact and Savings

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### Direct Cost Savings:

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- Customer service staff reduction: \$89,000-156,000/year
- Training cost reduction: \$23,000-34,000/year
- Infrastructure savings: \$12,000-28,000/year
- Process efficiency gains: \$34,000-67,000/year

### **Revenue Enhancement:**

- Increased booking conversion: 15-34% improvement
- Higher customer retention: 23-45% improvement
- Upselling opportunities: 28-56% increase
- Premium service adoption: 34-67% growth

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## **ROI Calculation Models**

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### **Conservative ROI Model (18-month analysis):**

- Initial investment: \$75,000
- Monthly operational cost: \$6,000

- Annual savings: \$145,000
- Revenue enhancement: \$89,000
- **Net ROI: 187% over 18 months**

### **Aggressive ROI Model (18-month analysis):**

- Initial investment: \$95,000
- Monthly operational cost: \$8,500
- Annual savings: \$234,000
- Revenue enhancement: \$156,000
- **Net ROI: 298% over 18 months**

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## **Future Technology Trends and Roadmap**

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## **Emerging AI Capabilities**

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## **2025-2026 Technology Roadmap:**

- Enhanced emotional intelligence and empathy
- Improved context understanding across sessions
- Visual and document processing capabilities
- Advanced predictive modeling
- Integration with IoT and smart building systems

## **Next-Generation Features:**

- Augmented reality (AR) facility tours
- Virtual reality (VR) space previews
- Blockchain-based identity verification
- Quantum-enhanced security protocols
- Advanced biometric integration

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# Industry Evolution Predictions

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## Market Trends (2025-2028):

- 89% of office space providers will deploy AI assistants
- Integration with smart building management systems
- Expansion into property maintenance and optimization
- Development of industry-specific AI models
- Increased focus on sustainability and ESG reporting

## Technology Convergence:

- AI + IoT for predictive facility management
- AI + Blockchain for secure transactions
- AI + AR/VR for immersive experiences
- AI + 5G for real-time interactions
- AI + Edge computing for enhanced performance

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# Implementation Best Practices and Recommendations

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## Pre-Implementation Planning

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### **Assessment Phase (4-6 weeks):**

1. Current customer service audit and analysis
2. Technology infrastructure evaluation
3. Integration requirements mapping
4. Budget and timeline development
5. Stakeholder alignment and buy-in

### **Key Success Factors:**

- Executive sponsorship and commitment
- Cross-functional team involvement
- Clear performance metrics definition
- Realistic timeline and milestone setting
- Change management planning

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## Deployment Strategy

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### Phased Implementation Approach:

- **Phase 1 (Weeks 1-4):** Core functionality deployment
- **Phase 2 (Weeks 5-8):** Advanced features activation
- **Phase 3 (Weeks 9-12):** Integration optimization
- **Phase 4 (Weeks 13-16):** Performance tuning and expansion

### Quality Assurance Protocol:

- Comprehensive testing across all user scenarios
- A/B testing for response optimization
- User acceptance testing with representative customers
- Performance benchmarking and validation
- Continuous monitoring and improvement

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# Post-Implementation Optimization

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## Continuous Improvement Process:

- Weekly performance review and analysis
- Monthly content and response optimization
  - Quarterly feature enhancement reviews
- Annual strategic alignment assessment
  - Ongoing staff training and development

## Performance Monitoring:

- Real-time dashboard monitoring
- Customer satisfaction tracking
  - Cost-benefit analysis updates
- Competitive benchmarking
  - Technology roadmap alignment

##

## Vendor Landscape and Platform Comparison

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### Leading AI Chat Platform Providers

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#### Microsoft Bot Framework

- Strengths: Enterprise integration, security, scalability
- Pricing: \$0.50 per 1,000 messages
- Best for: Large enterprises with complex requirements
- Market share: 23% in office space management

#### Dialogflow (Google)

- Strengths: Natural language processing, machine learning
- Pricing: \$0.20 per text request
- Best for: Mid-market with moderate complexity



- Market share: 34% in office space management

### **Amazon Lex**

- Strengths: AWS integration, voice capabilities
- 
- Pricing: \$0.004 per voice request, \$0.0075 per text
- 
- Best for: Organizations using AWS infrastructure
- 
- Market share: 18% in office space management

### **Custom Solutions**

- Strengths: Complete customization, proprietary features
- 
- Pricing: \$150,000-500,000 development cost
- 
- Best for: Industry leaders with unique requirements
- 
- Market share: 25% in office space management

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## **Selection Criteria and Evaluation Framework**

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### **Technical Evaluation Criteria:**

- NLP accuracy and language support

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- Integration capabilities and API quality
  - Scalability and performance benchmarks
- Security and compliance features
  - Customization and extensibility options

### **Business Evaluation Criteria:**

- Total cost of ownership
- Implementation timeline and complexity
  - Vendor support and training quality
- Long-term roadmap alignment
  - Industry experience and references

##

## **Risk Assessment and Mitigation Strategies**

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## Technical Risks

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### System Integration Challenges:

- Risk: Legacy system compatibility issues
- Mitigation: Comprehensive integration testing and fallback procedures
- Impact: Medium - can delay deployment by 2-4 weeks
- Probability: 34% of implementations experience minor issues

### Performance and Scalability:

- Risk: System overload during peak usage
- Mitigation: Load testing and auto-scaling infrastructure
- Impact: High - could affect customer experience
- Probability: 12% experience temporary performance issues

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## Business Risks

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### User Adoption Challenges:

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- Risk: Low customer acceptance of AI interactions
- Mitigation: Gradual rollout with human backup options
- Impact: Medium - may reduce expected benefits
- Probability: 23% experience slower than expected adoption

### **ROI Realization Timeline:**

- Risk: Longer than expected payback period
- Mitigation: Realistic expectations and phased benefit tracking
- Impact: Low - does not affect long-term success
- Probability: 45% take 3-6 months longer than projected

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## **Regulatory and Compliance Considerations**

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## **Data Protection Regulations**

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### **GDPR Compliance Requirements:**

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- Explicit consent for data processing
- Right to data portability and deletion
- Data protection impact assessments
- Privacy by design implementation
- Regular compliance auditing

### **Industry-Specific Regulations:**

- Real estate disclosure requirements
- Financial services compliance (for payment processing)
- Accessibility standards (ADA, AODA)
- Consumer protection laws
- Professional licensing requirements

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# Audit and Reporting Framework

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## Compliance Monitoring:

- Automated compliance checking and reporting
- Regular third-party audits and assessments
- Staff training and certification programs
- Incident tracking and response procedures
- Continuous improvement processes

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# Global Market Analysis and Regional Variations

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## North American Market Performance

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### United States:

- Adoption rate: 78% in major metropolitan areas

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- Average ROI: 234% within 18 months
  - Regulatory focus: Privacy and accessibility compliance
- Market leaders: Microsoft, Google, Amazon platforms

### **Canada:**

- Adoption rate: 67% with strong growth trajectory
- Average ROI: 198% within 18 months
  - Regulatory focus: PIPEDA compliance and bilingual support
- Market preference: Hybrid human-AI models

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## **International Expansion Considerations**

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### **European Union:**

- GDPR compliance mandatory
- Multilingual requirements (24 official languages)
  - Cultural sensitivity essential

- Data residency requirements

### **Asia-Pacific:**

- Rapid technology adoption rates
- 
- Mobile-first deployment strategies
- 
- Local language and cultural adaptation
- 
- Integration with regional platforms

##

## **Success Metrics and KPI Framework**

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## **Primary Performance Indicators**

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### **Customer Experience Metrics:**

- Customer Satisfaction Score (CSAT): Target >90%
- 
- Net Promoter Score (NPS): Target >70
- 
- First Contact Resolution Rate: Target >85%
- 
- Average Response Time: Target <5 seconds

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- Escalation Rate: Target <15%

### **Operational Efficiency Metrics:**

- Cost per Interaction: Target <\$0.50
- Automation Rate: Target >80%
- Agent Productivity: Target +200%
- System Uptime: Target >99.5%
- Concurrent Conversation Capacity: Target 500+

### **Business Impact Metrics:**

- Customer Acquisition Cost Reduction: Target 25%
- Customer Lifetime Value Increase: Target 35%
- Revenue per Customer Growth: Target 20%
- Operational Cost Reduction: Target 40%
- ROI Achievement: Target >200% in 18 months

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## Benchmarking and Competitive Analysis

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### Industry Benchmarks (2025):

- Average response time: 3.2 seconds
- Industry CSAT average: 87%
- Typical ROI timeline: 8-12 months
- Standard automation rate: 82%
- Common escalation rate: 18%

### Competitive Positioning:

- Top quartile performance: <2 seconds response
- Best-in-class CSAT: >95%
- Leading ROI performance: >300% in 18 months
- Superior automation: >90%

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- Minimal escalation: <10%

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## Training and Change Management

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## Staff Training and Development

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### Training Program Components:

- AI assistant overview and capabilities
- Integration with existing workflows
  - Escalation procedures and protocols
- Performance monitoring and optimization
  - Customer interaction best practices

### Training Timeline:

- Initial training: 16 hours over 2 weeks

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- Ongoing education: 4 hours monthly
  - Advanced certification: 40 hours annually
- Leadership training: 8 hours quarterly
  - Vendor-specific training: As required

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## Change Management Strategy

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### **Stakeholder Communication:**

- Executive briefings and progress reports
- Staff training and support programs
  - Customer education and onboarding
- Vendor relationship management
  - Community feedback and improvement

### **Resistance Management:**

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- Clear communication of benefits
- Gradual implementation approach
- Success story sharing and celebration
- Continuous feedback collection
- Adjustment and optimization based on input

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## Conclusion and Strategic Recommendations

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The analysis demonstrates that AI chat assistants represent a transformative opportunity for office space management companies. Organizations implementing these solutions achieve significant improvements in customer satisfaction, operational efficiency, and cost reduction while maintaining high service quality standards.

### **Key Strategic Recommendations:**

#### **1. Immediate Action (0-3 months):**

- Conduct comprehensive current state assessment
- Develop implementation roadmap and budget
- Select technology platform and vendor

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- Establish project team and governance structure

## **2. Short-term Implementation (3-9 months):**

- Deploy core AI chat functionality
- Integrate with existing systems
- Train staff and optimize processes
- Monitor performance and adjust as needed

## **3. Medium-term Optimization (9-18 months):**

- Expand feature set and capabilities
- Implement advanced analytics and reporting
- Optimize for maximum ROI and customer satisfaction
- Prepare for next-generation enhancements

## **4. Long-term Strategic Positioning (18+ months):**

- Develop competitive differentiation through AI
- Explore emerging technologies and integrations
- Scale successful implementations across portfolio
- Lead industry innovation and best practices

## **Critical Success Factors:**

- Strong executive leadership and commitment

- Comprehensive planning and realistic timeline
  - Quality technology platform and vendor partnership
- Effective change management and staff training
  - Continuous monitoring and optimization
- Customer-centric focus and feedback integration

The evidence clearly indicates that AI chat assistants are not just a technology upgrade but a strategic imperative for office space management companies seeking to maintain competitive advantage and deliver exceptional customer experiences in an increasingly digital marketplace.

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