**5. Implementation**

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*[在Microsoft Word中，您可以右键点击上方目录区域并选择'更新域'来自动生成准确的页码]*

# **5. Implementation**

## **II. Algorithm Flowcharts**

This document presents flowcharts for the key algorithms implemented in the ArtisanConnect platform. These visual representations illustrate the logical flow and decision points of each algorithm.

### **1. Service Provider Search Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **2. Booking Slot Availability Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **3. Service Provider Recommendation Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **4. Review Sentiment Analysis Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **5. Dynamic Pricing Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **6. Service Provider Matching Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **7. Real-time Chat Message Routing Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **8. Booking Conflict Resolution Algorithm Flowchart**

![](data:None;base64,)

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### **9. Payment Processing Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **10. Service Provider Ranking Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **11. User Authentication and Authorization Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

### **12. Notification Dispatch Algorithm Flowchart**

![](data:None;base64,)

*mermaid chart*

These flowcharts provide visual representations of the key algorithms that power the ArtisanConnect platform. They illustrate the logical flow, decision points, and processes that enable the platform’s core functionality.