# Solution Overview

AgentScrum is an enterprise-ready, AI-native SaaS solution designed to automate and optimize Agile execution. Built on **Microsoft Azure**, it uses a suite of autonomous agents to manage the complete Scrum lifecycle:

- Backlog prioritization
- Sprint planning
- Daily standups
- Impediment tracking
- Sprint reviews
- Retrospectives

Instead of relying on manual facilitation, **AgentScrum agents proactively interact with team members inside Microsoft Teams**. For example:

- Daily standups are triggered as chat threads, with Jira issues/Azure DevOps Issues auto-linked.
- Sprint reviews generate performance summaries with interactive polls.
- Retrospectives analyse team sentiment, highlight improvement themes, and log action items.

This approach ensures **consistent Scrum execution, reduced ceremony fatigue, and improved sprint discipline** while embedding Responsible AI principles and full auditability.

# Problem Statement

Agile teams today face structural challenges:

- **Low engagement**: Distributed teams struggle with synchronous meetings.
- **Redundant updates**: Information is duplicated across Jira , Slack, Teams and Azure DevOps.
- **Manual backlog grooming**: Prioritization is inconsistent and subjective.
- **Impediment delays**: Blockers escalate slowly due to unclear accountability.
- **Scrum Masters overburdened**: They spend >30% of their time on facilitation/reporting.
- **Lack of auditability**: Sprint decisions and changes are not logged systematically.

AgentScrum addresses these gaps with **autonomous, context-driven agents** that automate Scrum ceremonies while allowing human oversight.

# Solution Detail

- **Description**: AgentScrum operates as a **multi-agent orchestration layer** built with LangGraph + A2A protocol. Agents communicate with enterprise systems through MCP (Model Connector Protocol) servers and store context in Azure services (Cosmos DB, AI Search, Redis).
- **Capabilities**:
  - Automated backlog grooming using WSJF scoring.
  - Context-aware daily standups linked to Jira tasks.
  - Real-time impediment escalation to Scrum Masters.
  - Sprint review reports with stakeholder feedback loops.
  - Retrospective summaries with sentiment analysis.
- **Solution Selling Proposition**: Reduces Agile overhead, enforces process consistency, and enables globally distributed collaboration.
- **Solution Availability**: Available as a controlled beta for enterprise customers using Jira/Azure DevOps + Teams/Slack.

# Technical Architecture
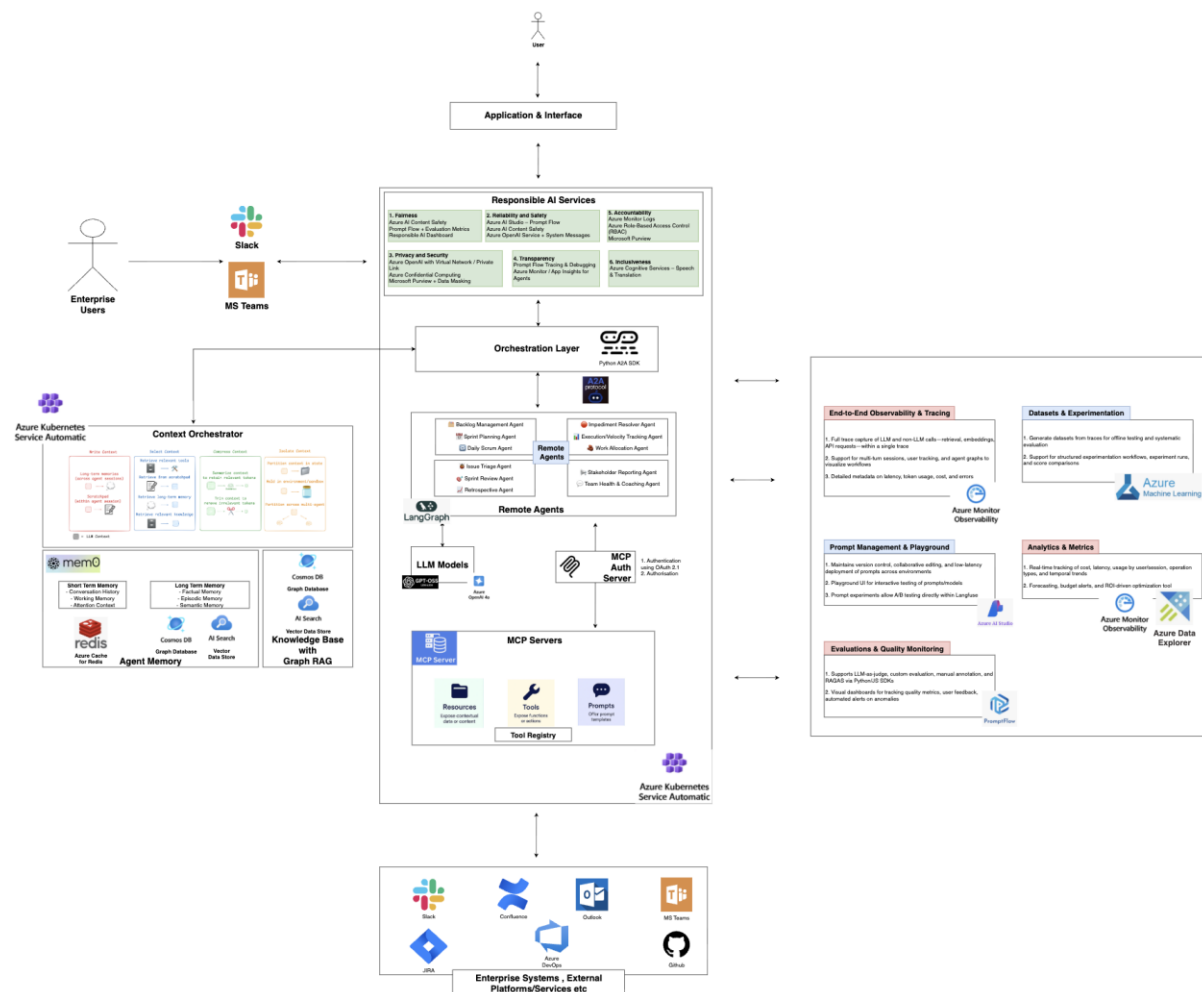
The architecture mirrors the Analyst Azure deployment:

- **User Interface Layer** – Teams chat, Slack Chat  and Admin/Enterprise Portals.
- **Responsible AI Layer** – Azure AI Content Safety, Fairlearn, Prompt Flow evaluators.
- **Orchestration Layer** – Orchestrator Agent controls specialized Scrum Agents via A2A.
- **Context Orchestrator** – Cosmos DB + mem0 handle long-term sprint context; Redis stores short-term session memory; Azure AI Search provides retrieval.
- **Remote Agents** – Standup, Backlog, Sprint Review, Impediment, Coaching, and Risk agents.
- **MCP Servers** – Secure connectors to Jira, Slack, GitHub, Outlook, Confluence.
- **Observability Stack** – Azure Monitor, Data Explorer, App Insights for logs, traces, and metrics.
- **Deployment Layer** – AKS for scalability, VNets + Private Link for secure isolation, Azure AD for identity.

## Key Components

1. **Orchestrator Agent** – Manages execution of all agents, routes requests, and handles errors.
2. **Scrum Agents** – Specialized autonomous units (Standup, Backlog, Sprint Review, etc.).
3. **Context Engine** – Combines mem0, Cosmos DB, Redis, AI Search for persistence and retrieval.
4. **LLM Models –** Support for Azure Open AI Models **,** GptOss Models on Azure AKS
5. **MCP Servers** – Abstract away integration with enterprise tools.
6. **Responsible AI Services** – Ensure fairness, safety, and bias evaluation in agent outputs.

## Integration Points

- **Enterprise Systems**: Jira, Slack, Confluence, GitHub, Outlook, MS Teams.
- **Azure Services**: Cosmos DB, Azure Cache for Redis, Azure AI Search, Azure OpenAI, AKS, Purview.
- **Authentication**: Azure AD and MCP Auth Server for RBAC.
- **Observability**: Azure Monitor, App Insights, Prompt Flow for evaluation and traceability.

# Use Cases

- **Daily Standups**: Automated prompts in Teams with Jira-linked updates.
- **Backlog Grooming**: Agent suggests priorities and WSJF scores.
- **Sprint Reviews**: Generates review decks with sprint metrics and polls.
- **Impediment Tracking**: Escalates blockers with context + resolution paths.
- **Retrospectives**: Sentiment and feedback summaries with logged action items.
- **Agile Coaching**: Agents track trends and suggest playbooks to coaches.

# Customer Pain Points Addressed

- Eliminates repetitive facilitation tasks.
- Provides consistent prioritization frameworks.
- Improves async collaboration for distributed teams.
- Maintains auditable decision trails.
- Detects hygiene issues before they impact delivery.

# Industry-Specific Applications

- **Financial Services**: Regulatory-ready Agile governance.
- **Manufacturing**: Multi-site coordination of Agile teams.
- **Retail**: Async workflows for globally distributed product teams.
- **Healthcare**: Traceable retrospectives for compliance audits.
- **Technology**: 24/7 Agile execution for global engineering squads.

# Sample Customer Journey

1. At 9:30 AM, Standup Agent triggers a Teams thread linked to Jira issues.
2. Developers provide updates inline; blockers are flagged automatically.
3. Impediment Agent escalates critical blockers to Scrum Master in Teams with suggested fixes.
4. Sprint Review Agent prepares reports and sends review decks to stakeholders.
5. Retrospective Agent captures feedback, detects recurring themes, and stores all decisions in Cosmos DB with an audit log.

# Technical Requirements

- Azure subscription with Azure OpenAI enabled.
- AKS cluster for agent deployment.
- Cosmos DB, Redis, and Azure AI Search for context storage.
- MCP connectors for Jira, GitHub, Outlook.
- Azure Open AI for LLM Model or GPTOss Models on Azure AKS.
- Azure Monitor + Data Explorer for observability.

# Security Architecture

- **Identity**: Azure AD + MCP Auth Server for role-based access.
- **Networking**: VNets, Private Link, NSGs for secure access.
- **Governance**: Azure Purview for data lineage and policy enforcement.
- **Confidentiality**: Optional Azure Confidential Computing for PII workloads.
- **Auditability**: Logs captured via Azure Monitor and App Insights.

# Performance Considerations

- Remote agents execute in parallel for scalability.
- Redis caching reduces query latency.
- Cosmos DB and AI Search optimized for fast retrieval.
- Load-aware orchestration ensures fair distribution of workloads in AKS.
- Real-time tracing detects bottlenecks.

# Tools and Azure Services Used

- **Core AI**: Azure OpenAI, Prompt Flow, AI Studio
- **Data & Context**: Cosmos DB, Redis, Azure AI Search, mem0
- **Observability**: Azure Monitor, Data Explorer, App Insights
- **Governance & Security**: Azure Purview, Confidential Computing, Private Link
- **Deployment**: AKS, VNets, Azure AD

# Users of Agent

- **Scrum Masters/Team Leads** – Manage daily operations via Standup, Planning, and Impediment Agents.
- **Product Owners** – Backlog and Sprint Review automation.
- **Engineering Managers** – Track execution, risk, and burndown trends.
- **Agile Coaches** – Use Coaching Agent to monitor team sentiment and adoption.
- **Developers/QA/Designers** – Provide input via Teams prompts, no separate UI required.

# Dependencies

- Jira, GitHub, Outlook, MS Teams, Confluence APIs.
- MCP servers for enterprise integration.
- Azure OpenAI /GPTOss for agent intelligence.
- AKS for scalable workloads.

# Key Benefits and Differentiators

- **Full Scrum Automation** – From backlog grooming to retrospectives.
- **Human-in-the-loop** – Every agent action is reversible and logged.
- **Embedded UX** – Works directly inside Teams & Jira.
- **Responsible AI-first** – Fairness, safety, and audit readiness.
- **Multi-agent orchestration** – LangGraph + A2A enables concurrency.
- **Sprint hygiene monitoring** – Tracks scope creep, DoD compliance, and nudges teams proactively.

# Value Proposition

AgentScrum transforms Agile execution by embedding **intelligent, auditable agents** into Scrum rituals. It delivers:

- Reduced overhead (up to 40% time saved for Scrum Masters).
- Consistent prioritization and governance.
- Enhanced async collaboration across distributed teams.
- Enterprise-grade compliance and auditability.
- A scalable, Azure-native deployment model.

# Conclusion

AgentScrum on Azure redefines Agile for the enterprise. By shifting ceremonies into **agent-led, compliance-aware workflows**, it empowers teams to focus on delivery instead of facilitation. With deep Microsoft ecosystem integration (Teams, Outlook, Azure AD), Responsible AI support, and full observability, AgentScrum is the co-pilot that finally enables Agile to **scale without stress**.