



PowerApps Component Framework (PCF) Development Services

Empowering Microsoft Business Applications



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Executive Summary

The PowerApps Component Framework (PCF) represents the next generation of custom component development for Microsoft business applications. Our expert team leverages modern web technologies, including React, TypeScript, Fluent UI, and Ant Design to create powerful, reusable components that extend the capabilities of D365, Model-Driven Apps, Canvas Apps, and Power Pages.

What is PCF?

PowerApps Component Framework (PCF) is Microsoft's modern framework for building custom code components that seamlessly integrate with Microsoft business applications. Unlike traditional HTML.

web resources, PCF components are:

- Client-side components built with modern web technologies
- Framework-native with direct API access
- Performance-optimised without iframe overhead
- Reusable and configurable across multiple applications
- Responsive with modern design principles







74%

Microsoft Power Platform speeds up app development, and PCF takes it even further with reusable custom components.

Source: Microsoft Power Platform Economic Impact Study



Technical Specifications

Technology	Version	Purpose
 React	17+	UI Component Library
 TypeScript	4.5+	Type-safe Development
 Fluent UI	8.x	Microsoft Design System
 Ant Design	4.x	Enterprise UI Components
 PCF SDK	Latest	Framework Integration
 Node.js	16+	Development Environment

Technical Specifications

- **Frontend:** React, TypeScript, HTML5, CSS3
- **UI Frameworks:** Fluent UI, Ant Design, Custom CSS
- **Build Tools:** Webpack, npm, PCF CLI
- **Version Control:** Git, Azure DevOps
- **Testing:** Jest, React Testing Library
- **Deployment:** Power Platform CLI, ALM processes

Microsoft Platform Compatibility

- **Dynamics 365** (Sales, Customer Service, Field Service, Marketing)
- **Power Apps** (Model-Driven and Canvas Apps)
- **Power Pages** (External-facing portals)
- **Power Platform** (Complete ecosystem integration)



50-90%

Low-code development speeds up application delivery, with PCF minimizing repetitive coding through custom components.

Source: Forrester

Core Capabilities

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Custom Component Development

- **Data Input Controls:** Advanced form fields, multi-select components, date pickers
- **Data Display:** Interactive grids, charts, dashboards, KPI widgets
- **Navigation:** Custom menus, breadcrumbs, dynamic routing
- **Media:** Image galleries, video players, document viewers

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Advanced Visualizations

- **Charts & Graphs:** D3.js integration, custom chart types
- **Interactive Dashboards:** Real-time data visualization
- **Mapping:** Geographic data display and interaction
- **Timeline Components:** Project timelines, event calendars

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Integration Capabilities

- **Dataverse Web API:** Native data access without custom backends
- **External APIs:** RESTful service integration
- **Authentication:** Azure AD, OAuth 2.0 support
- **Real-time Updates:** SignalR integration for live data

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User Experience Enhancements

- **Modern UI/UX:** Contemporary design patterns
- **Responsive Design:** Mobile-first approach
- **Accessibility:** WCAG 2.1 AA compliance
- **Internationalisation:** Multi-language support

Key Advantages



Performance Benefit

- **50-70% faster loading** compared to HTML web resources
- **Reduced memory footprint** through optimized rendering
- **Native integration** eliminates iframe overhead
- **Cached components** for improved user experience



Development Efficiency

- **Reusable** components across multiple applications
- **TypeScript safety** reduces runtime errors by 60%
- **Modern tooling** accelerates development cycles
- **Component libraries** for rapid prototyping

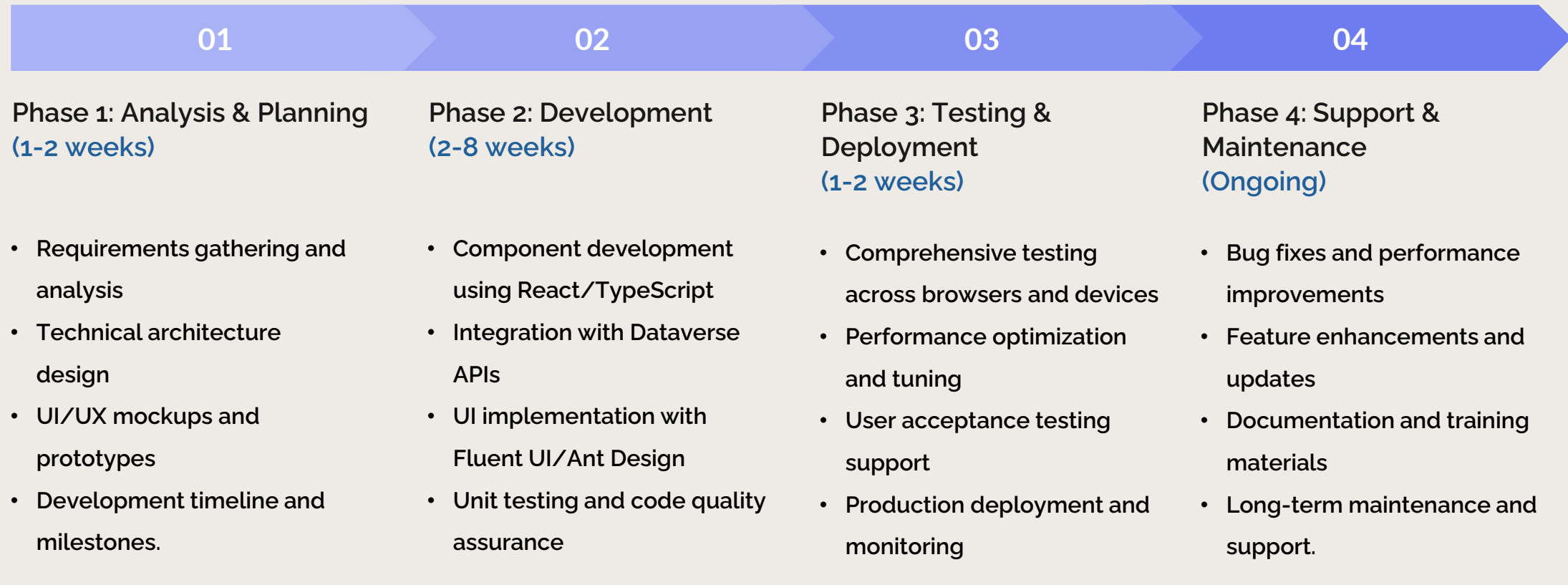


Maintenance Benefits

- **Single codebase** for multiple deployment targets
- **Automated testing** ensures code quality
- **Version control** with proper ALM processes
- **Microsoft support** for long-term stability



Development Process



10 Mn

Over 10 million monthly active Power Apps users rely on custom controls and component frameworks.

Source: Microsoft Power Platform 2024 usage insights

200%

Power Platform drives high ROI, with PCF further enhancing value through consistent components and lower upkeep.

Source: Forrester TEI Report

Business Value



Cost Savings

- **Development Time:** 30-50% reduction vs traditional methods
- **Maintenance Costs:** 40-60% lower ongoing expenses
- **Training Overhead:** Minimal learning curve for users
- **Licensing:** No additional platform cost



Productivity Gains

- **User Efficiency:** 25-40% improvement in task completion
- **Data Quality:** Enhanced validation and input controls
- **Decision Making:** Better data visualization and insights
- **Mobile Productivity:** Full mobile capability



Return on Investment

- **Typical ROI:** 200-400% within first year
- **Payback Period:** 3-6 months for most projects
- **Scalability:** Components reusable across organization
- **Future-Proofing:** Microsoft's continued investment



Security & Compliance

Security Features

- **Azure AD Integration:** Seamless authentication
- **Role-based Access:** Granular permission control
- **Data Encryption:** At rest and in transit
- **Audit Logging:** Complete activity tracking

Compliance Standards

- **GDPR:** European data protection compliance
- **HIPAA:** Healthcare data security (when applicable)
- **SOC 2:** Security and availability standards
- **ISO 27001:** Information security management

Migration Path

From HTML Web Resources

- **Assessment:** Current component inventory
- **Prioritization:** Business impact analysis
- **Migration:** Phase-by-phase conversion
- **Testing:** Comprehensive validation
- **Deployment:** Gradual rollout strategy

Modernization Benefits

- **Performance:** 3-5x improvement
- **Maintainability:** Simplified codebase
- **User Experience:** Modern, intuitive interfaces
- **Scalability:** Enterprise-ready architecture

About Netwoven

Netwoven: Your Trusted Microsoft Solutions Partner

Netwoven is a Microsoft Solutions Partner specializing in PowerApps Component Framework (PCF). We help organizations build custom, reusable components that enhance Power Apps functionality and deliver superior user experiences.

Our end-to-end services include design, development, deployment, and support - ensuring secure, scalable solutions integrated with Microsoft Dataverse. With global delivery centers and 24x7 support, we guarantee compliance, minimal disruption, and rapid adoption.

Trusted by Fortune 1000 companies, Netwoven brings proven frameworks and hands-on expertise to accelerate your digital transformation.

Next Steps

[Talk With Power Platform Expert](#)

Netwoven Inc.

4000 Pimlico Drive
Suite 114-103 Pleasanton,
CA 94588
Phone: +1 877 638 9683
Email: info@netwoven.com

