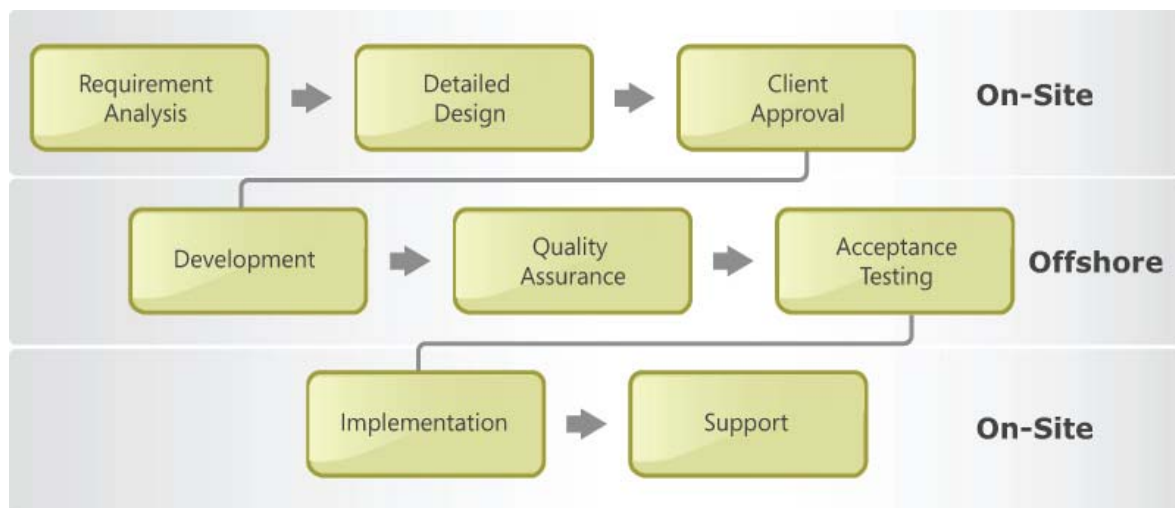




OFFSHORE SOFTWARE DEVELOPMENT METHODOLOGY

Cipher provides a standard method and guidelines to ensure that all projects are conducted in a disciplined, well-managed, and consistent manner that promotes the delivery of quality products and results in projects that are completed on time and within budget. The methodology and how it fits in the overall project life-cycle methodology is conceptually shown in the figure below.



Offshore outsourcing is at the core of the Cipher Methodology, which refers to the philosophy of:

- breaking pieces of work into logical components, and
- distributing these components geo-locationally, to perform them where it creates the maximum value.

The cost arbitrage of Cipher methodology is about the lowest form of value that you get. Part of the savings allows you to invest in more quality time for the definition and design phase of the solution. This increases your odds of gaining a competitive advantage. Further, savings from this methodology allows you to invest in pilot projects, which you couldn't have because of resource constraints. This adds to your competitive advantage as well.

Different parts of a project (or kinds of work) may be suited to onsite, or offshore locations.

Services	Client Site Locations	Offshore Locations
Strategy and Roadmap definition	Client interaction, Interviews, Reviews, Program Leadership, & Goal-Setting, Analysis and synthesis	Background research, thought leadership, & information support.
Development & Integration	Architecture, Requirements, Change Mgmt, & Implementation, Requirements analysis, High level Design, & Prototype building, & Implementation support	Detailed design, Code Development, Testing & Integration
Systems Integration & Package Implementation	Client Interaction, Process Mapping, Solution Definition, Architecture, Change & Program Mgmt	Prototype Building , High Level Design, & Custom Components, Integration Interfaces, & Reports Building , Implementation Support
ITO, BPO, & AMO	First-level support, Facilities support, & Program Mgmt, Service Redundancy	Large Offshore Centers, Core Service Delivery

Further, throughout the engagement, there is a comprehensive focus on infrastructure and security redundancies, and Confidentiality & privacy focus.

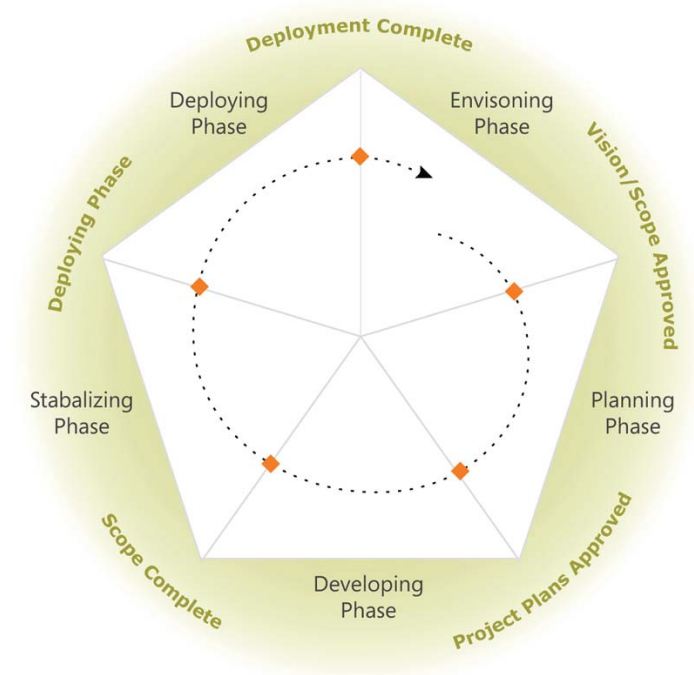
Cipher methodology positions our clients to take advantage of “Fixed Bid” model. As we get into development phase following our methodology, we are able to offer the delivery on a fixed price, thereby taking away the all financial risk from the customer.

Development Methodology

We follow Microsoft’s solution framework methodology in our development projects. The MSF team model is as follows:

- **Product management-** Responsible for managing customer communications and expectations. During the design phase, product management gathers customer requirements and ensures that business needs are met. Product management also works on project communication plans such as briefings to the customers, marketing to users, demonstrations, and product launches.
- **Program management-** Responsible for the development process and for delivering the solution to the customer within the project constraints.
- **Development-** Responsible for developing the technology solution according to the specifications provided by the program management role.
- **Testing-** Responsible for identifying and addressing all product quality issues and approving the solution for release. This role evaluates and validates design functionality and consistency with project vision and scope.
- **Release management-** Responsible for smooth deployment and operations of the solution. Release management validates the infrastructure implications of the solution to ensure that it can be deployed and supported.
- **User experience-** Analyzes performance needs and support issues of the users and considers the product implications of meeting those needs.

MSF Process Model



Envisioning Phase

Objective:

- Identify the tasks and deliverables that address the requirements and goals of the project

Responsible:

- Program Management
- Product Management

Deliverables:

- Vision / Scope
- Project Structure
- Risk assessment

Milestones:

- Core team organized
- Vision / Scope created

Planning Phase

Objective:

- Determine what to develop and plan how to create the solution

Responsible:

- Program Management

Deliverables:

- Functional Specification
- Risk Management Plan
- Master Plan and Mater project schedule

Milestones:

- Technology Validation complete
- Functional specification complete
- Master plan complete
- Master project schedule complete
- Development and test environments set up

Development Phase

Objective:

- Create the solution

Responsible:

- Program Management
- Development

Deliverables:

- Source code and executable files
- Installation scripts and configuration settings for deployment
- Finalized functional specification
- Performance support elements
- Test specifications and test cases

Milestones:

- Proof-of-concept application complete
- Internal builds complete

Stabilizing Phase

Objective:

- Perform integration, load, and beta testing on the solution

Responsible:

- Program Management
- Testing

Deliverables:

- Final release
- Release notes
- Performance support elements
- Test results and testing tools
- Source code and executable files
- Project documents
- Milestone review

Milestones:

- Bug convergence
- Zero-bug release
- Release candidates
- Golden release

Deployment Phase

Objective:

- Deploy the solution technology and site components
- Stabilize the deployment
- Transfer the project to operations and support
- Obtain final customer approval of the project

Responsible:

- Release Management

Deliverables:

- Operation and support information systems
- Documentation repository for all versions of documents and code developed during the project
- A training plan
- Project completion report

Milestones:

- Core components deployed
- Site deployments complete
- Deployment stable