Project Management at Cisco

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Background
Jose Solorio
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- Project Manager
  2.5 Years Project Management Experience
  Software Development
  User Centered Design

- Certifications
  - Certified
  - In Progress
  - In Progress
  - Certified

- UCSC Alumn
  Information Systems Management, B.S., 2008
  Former Information Systems Management Association – ISMA – Officer
Ali Ataei

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- Project Manager/Scrum Master
  1.5 Years of Project Management Experience

- Certifications
  - Certified ScrumMaster
  - In Progress PMP®

- UCSC Alumni
  - Information Systems Management, B.S., 2009
  - Information Systems Management Association – ISMA – Admin
Ben Rus

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• Experience
  Project Manager - Cisco
  1.5 Years Project Management Experience
  Started as Project Management Intern

• Education
  Information Systems Management, B.S., 2009 - UCSC
  Focus on Software Development and Network Administration
  Former Member of ISMA
When customers think of Cisco, they think of a company that brings people together by removing the barriers to communication. By connecting people Cisco can transform our lives, making us more productive, engaged, and powerful.
Cisco Technology Strategy
Enterprise

Routers
Switches
Security
Supporting Software
Small Business

Voice Systems
TelePresence
WebEx
Cius
Home

Home Networking
Flip Video
ūmi
Our Team
Smart SAVI

• Security
  Specializing in security based applications and intelligence sold to internal and external customers and partners.

• Analytics
  Specializing in extracting useful information out of raw data and turning it into business intelligence.

• Visualization
  Works across Cisco to help develop and deliver a standards-based, consistent user experience.

• Supporting Groups:
  PMO
  QA
  Infrastructure
Project Management
What is a Project?

• A project is a temporary endeavor undertaken to create a unique product, service, or result.

• A project is finite (a definite beginning and end)

• There are typically 3 main constraints and risks for any given project
  Scope, Time, Budget

What is Project Management?

- Project management is a set of principles, practices, and techniques applied to lead project from start to finish while managing the project's resources and controlling the risks and constraints.

- Different methodologies
  - Traditional (Waterfall)
  - Agile (Iterative)

- No methodology is better than all

“The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.”

Project Manager
- Micro-Level Manager
- Responsible for monitoring the tasks of a project from start to finish
- Fully accountable for success or failure of a project

Program Manager
- Macro-Level Manager
- Responsible for managing a collection of projects that form a program
- Set overall direction for teams and future projects they will work on

Product Manager
- Engineering Manager
- Responsible for ensuring the product requirements are satisfied
- Technical leads, former engineers, directors
Applying Project Management: Using Traditional (Waterfall) Methodology
Traditional (Waterfall) Framework: Linear & Sequential

Source: Cisco Product Development Methodology (CPDM), GEM Version II
Conceptualization Phase

- Define Project and obtain authorization to start the project
- Define Scope and commit initial financial resources
- Identify Stakeholders
- Outcome: Project is officially authorized.
Planning Phase

- Establish scope of project
- Define and refine objectives
- Develop a course of action required to attain objective(s)
- Explore all aspects of the scope, time, costs, quality, communication, and risks.
Execution Phase (Development + Validation)

- Complete the work defined in the project plan
- Coordinate people and resources
- Direct and manage the project team
- QA Testing
- Readiness Review
Deployment & Maintenance

Source: Cisco Product Development Methodology (CPDM), GEM Version II
Scenario: You have been assigned to manage the development of a new word processing application
Concept Phase

The quick brown fox jumps over...
Plan Phase
Develop Phase
Develop Phase
Develop Phase
Develop Phase
Develop Phase
Validate Phase

Defects Discovered
Validate Phase

- All defects fixed
- All requirements met
Launch

External Release 1.0
Traditional: Once you complete a phase, you never repeat it.
Applying Project Management: Using Agile (Iterative) Methodology
Agile (Iterative) Framework

Iteration X

- Sprint Planning
- Update Product Backlog
- Sprint Work
- Sprint Retrospective
- Sprint Review

Release 0.1

Release 0.5

Release 1.0
Agile (Iterative) Framework

- Sprint Planning
- Iteration 1
- Release 0.1
Common questions:
What do you want this application to do?
As a Customer, I would like to be able to...

- Write text
- Save a File
- Open a File
- Insert a picture
- Format text
- Have a scroll bar
- Close the application
- Insert a hyperlink
- Adjust the font
- Find / Replace / Select
- Check spelling
Iteration 1
- Write Text
- Have a scroll bar

Iteration 2
- Save a File
- Open a File

Iteration 3
- Find / Replace / Select
- Format text
Agile (Iterative) Framework

Sprint Planning

Iteration 1

Sprint Work

Perform Testing

Release 0.1

Iteration 1

Perform Testing
Iteration 1: Write text and have a scroll bar

The quick brown fox jumps over the...
Agile (Iterative) Framework

Sprint Planning

Sprint Work

Sprint Review

Iteration 1

Perform a Demo

Release 0.1
Iteration 1: Write text and have a scroll bar

The quick brown fox jumps over the...
Iteration 1

• Write Text
• Have a scroll bar

Iteration 2

• Save a File
• Open a File

Iteration 3

• Find / Replace / Select
• Format text
Agile (Iterative) Framework

Sprint Planning

Sprint Work

Sprint Retrospective

Sprint Review

Iteration 1

Release 0.1
“Development could improve on…”
Agile (Iterative) Framework

Iteration 1

- Sprint Planning
- Update Product Backlog
- Sprint Work
- Sprint Retrospective
- Sprint Review

Release 0.1
Product Backlog

Close the application
Insert a hyperlink
Adjust the font
Check Spelling
Insert a picture

Release 0.1

Write Text ✓
Have a scroll bar ✓
Save a file
Open a file
Find / Replace / Select
Format Text
Insert a picture (Iteration 2)
Iteration 1

✓ Write Text
✓ Have a scroll bar

Iteration 2

• Save a File
• Open a File
• Insert a picture ★

Iteration 3

• Find / Replace / Select
• Format text
Agile (Iterative) Framework

Iteration 2

Sprint Planning

Release 0.1

1 2
Agile (Iterative) Framework
Iteration 2: Save a file, Open a File, Insert Picture

The quick brown fox jumps over the…
Iteration 1

- Write Text
- Have a scroll bar

Iteration 2

- Save a File
- Open a File
- Insert a picture

Iteration 3

- Find / Replace / Select
- Format text
Agile (Iterative) Framework

Iteration 2

- Sprint Planning
- Sprint Work
- Sprint Retrospective
- Sprint Review
- Update Product Backlog

Release 0.1
Agile (Iterative) Framework

Iteration 3

- Sprint Planning
- Update Product Backlog
- Sprint Work
- Sprint Retrospective
- Sprint Review

Release 0.1

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The quick brown fox jumps over the...
Agile (Iterative) Framework

Iteration X

- Sprint Planning
- Sprint Work
- Sprint Review
- Sprint Retrospective
- Updated Product Backlog

Release 0.1

- 1
- 2
- 3

Release 0.5

- 1
- 2
- 3
Agile (Iterative) Framework

Sprint Planning

Updated Product Backlog

Sprint Work

Sprint Review

Sprint Retrospective

Iteration X

Release 0.1

Release 0.5

Release 1.0
External Release 1.0
Agile: You repeat the same cycle to get closer and closer to your final product
Traditional

- Sequential
- Linear
- Fixed Time / Costs / Scope
- Appropriate for predictable projects
- Follows formal processes
- Infrequent or single releases

Agile

- Iterative
- Cyclical
- Adjusts to change
- Development focuses on functionality
- Process allows flexibility
- New releases often
Career Paths
# Certifications

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<th>Name</th>
<th>CAPM</th>
<th>PMI-RMP</th>
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<td><strong>Offered By</strong></td>
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<td>Project Management Institute</td>
<td>PMI</td>
<td>Scrum Alliance</td>
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<td>Agile</td>
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<td><strong>Work Experience</strong></td>
<td>1500 Hrs</td>
<td>3000 Hrs</td>
<td>4500 Hrs + 3 Yrs</td>
<td>Pass Exam</td>
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Source: Project Management Institute (PMI) and Scrum Alliance
Industries & Fields

- High-Tech
- Manufacturing
- Visual Design
- Pharmaceutical
- Process Automation
- Construction
- Engineering
- Quality Assurance
- Industrial Design