Agile Change Management

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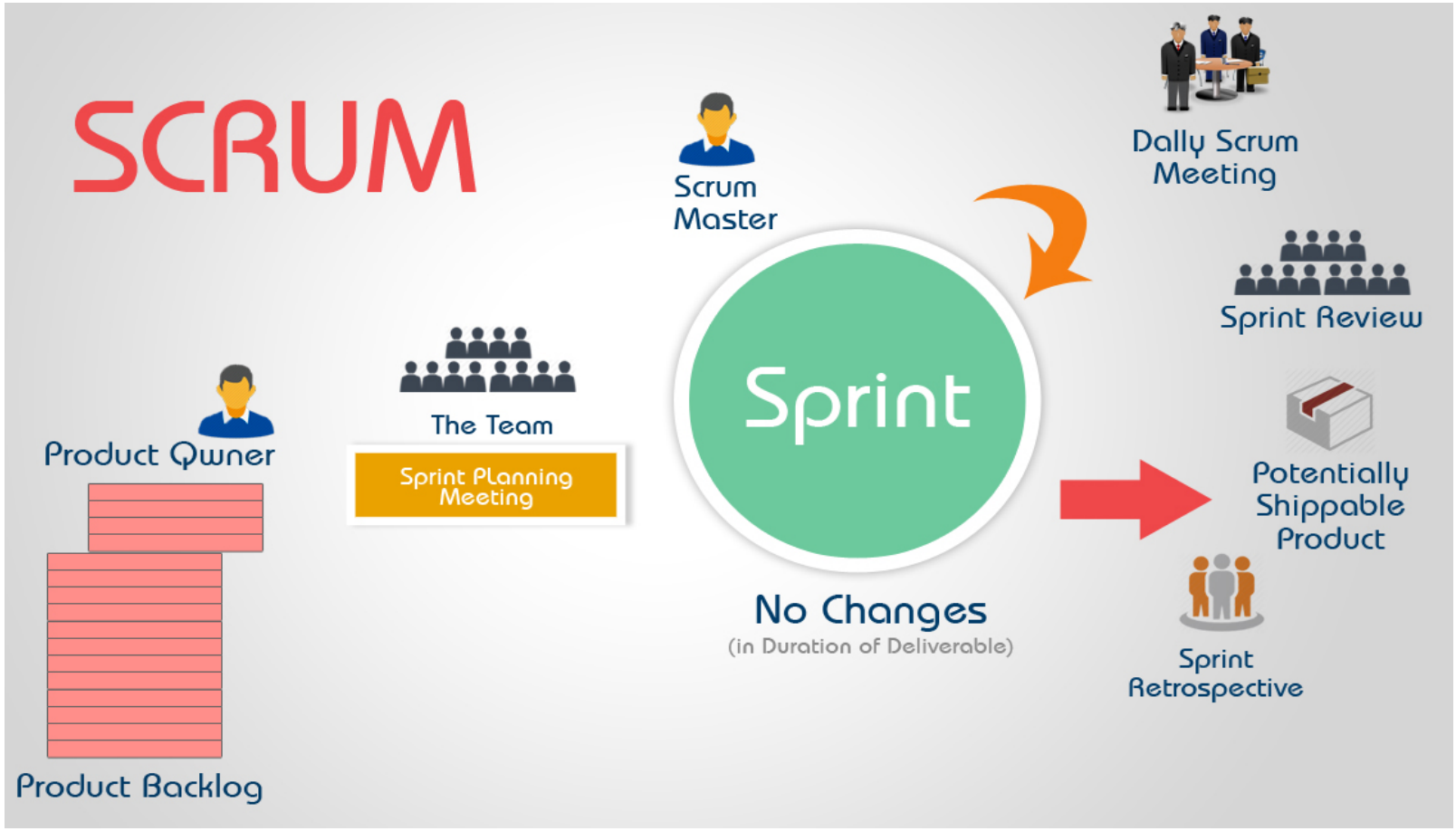
Agile

- Incremental and Iterative development
- Working Software
- Customer Collaboration
- Adaptability to Change
- Various frameworks based on team size, project duration, budget, stability etc.
- Scrum, XP, Lean, Kanban, Crystal

Agile Frameworks

- More than 50% projects follow Scrum



Agile Frameworks

- Extreme Programming
  - Focus on Customer Satisfaction
  - Testing from day one, Pair Programming
  - Communication, Simplicity, Feedback, Respect and Courage
- Lean
  - Agile follows Lean principles
  - Eliminate waste or non-value added activities
  - Amplify Learning, Decide late, Deliver Fast

Agile Frameworks

- Kanban
  - "Just-In-Time" delivery
  - Visualize workflow and limit work in progress
  - Balance on team workload
- Crystal
  - Family of development methodologies
  - Face-to-Face Customer Communication
  - Chartering, Cyclic Delivery, Wrap-up

Change Management

- Why do requirements change ?
  - Incomplete Requirements
  - New Customer Requirements
  - Incorrect / Redundant requirements
  - Change in Market Place
  - Technologies Evaluation
  - Organization Changes / Politics
  - System Empowerment
  - Defect Identification / System Implementation Errors

Change Management

- What is Change Management ?
  - Task of managing and enabling changes rather than preventing them
  - Disciplined, streamlined and flexible way of implementing changes in the requirements
- Why Change Management ?
  - Change is inevitable for any software
  - Susceptible breakage of existing system
  - Assess, Plan, Implement, Track and Release the changes systematically

Traditional vs Agile

- Traditional
  - Scope, Quality, Time, Cost are fixed
  - No anticipation of changes
  - Heavy Penalty – Cost, Quality
  - Risk Analysis to implement changes
- Agile
  - Rationale - Rapid Change Management
  - Embrace changes, Scope flexibility
  - Agile Manifesto – "Responding to change over following a plan"

Traditional vs Agile

- Principle of Agile - “Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage”
- Prioritization of requirements
- Risk Mitigation

Prioritizing Requirements

- MoSCoW
  - Tag each requirement in the backlog to MSCW
  - M - MUST, S - SHOULD, C - COULD, W – WONT
  - M – Highest Priority, W – Lowest Priority
  - Risk Analysis to implement changes
- Business Value Based
  - Assign priority based on business value offered
  - Higher priority delivers greater business benefit
  - Decided by Product Owner

Prioritizing Requirements

- Technology Risk Based
  - Prioritized based on technical risk involved in implementing change
  - Higher technical risk implies higher priority
- Kano Model
  - Assign priority based on customer preferences of qualities
  - Must-be/Basic, One dimensional, Attractive, Indifferent, Reverse

Prioritizing Requirements

- Walking Skeleton
  - Selection of requirements to build a Minimum Viable Product
  - End to End features in a short span of time
- Validated Learning
  - Features with the highest market risk are picked
  - Release to market and get feedback
  - Apply the learning to develop new features

Practices in Agile Change Management

- Principal Factors
  - Embrace Change - Iterative and incremental development with short feedback cycles
  - Responsiveness - Close Customer collaboration
- Minimize the following
  - Cost of knowledge transfer within team
  - Amount of knowledge captured or updated in the artifacts
  - Waiting time in making decisions

Practices in Agile Change Management

- Be more responsive to Change Requests
  - Short and Frequent iterations
  - Collaboration and Communication
  - Risk Analysis and Intimation
  - Team Empowerment
- Implement the changes quickly and easily
  - Short and Complete cycles
  - Product Design
  - Minimizing non-code artifacts
  - Focus

Interviews

- Interviewees
  - Manishi Sharma, Project Delivery Head of Verizon, USA
    - Goal - To build a new system with new technologies to migrate an existing system.
    - Challenges Faced - As the end to end functionalities of existing system are known, they planned to develop and deploy the entire new system at once. But when the application was tested, they encountered a lot of design issues and requirement changes, which was unexpected.
    - Solution – So, they adopted agile scrum methodology and divided all the end to end functionalities to small features, prioritized, implemented and closely monitored each sprint. With change management techniques, change requests are also taken care of and the new system was successfully developed .

Interviews

- Interviewees
  - Suhas Tare, Scrum Master of Project, Ericsson, USA
    - Goal - To deliver services in 12 months as per customer contract.
    - Challenges Faced - After 8 months of development, the customer requested an additional service to be delivered. But the existing design did not support the new product with the Waterfall model.
    - Solution - They decided to adopt agile scrum framework with Rally tool. By following best practices in agile and change management processes, the system design has become flexible enough to accept changes at any point. They implemented and delivered all the services requested by customer on time, without compromising on quality.

Survey and Results

- Conducted survey taken by software professionals at various levels to know more about Agile and Change Management
  - Survey Link - https://www.surveymonkey.com/r/CB96YSX
  - Survey Reports Link - https://www.surveymonkey.com/results/SM-SNWJQTWS/
  - More than 80% prefer Agile Scrum
  - Customer Satisfaction is the greatest benefit of Agile

Conclusion

- Key Benefits of Agile Change Management:
  - Responsiveness to accept change requests and implement them quickly and easily
  - Risks Minimization
  - Flexibility and Transparency
  - Customer Satisfaction
  - End Product Quality
  - Business Value
  - On-time Delivery
  - Cost Reduction

Thank You