

**In multi team agile settings it is important to ensure that the product increments coming from the teams, integrate successfully to create business value.**

#### *Done is all done*

In agile, teams tend to focus on the work coming from the backlog of the team. In a multi-team environment this can result in a not working solution due to integration problems. Agile teams must take full responsibility for a working solution, including integration, this requires a coordinated approach.

#### *Integrate often*

Big bang integration and ad-hoc integration must be avoided as there is little control and high risk for integration defect. Frequent integration reduces the integration risk due to the smaller integration parts..

#### *Share knowledge*

Identifying integration risks and execution of integration tests requires deep knowledge of the full business landscape. This knowledge is often scattered over teams and/or centralized in only a few people. Knowledge sharing between teams is essential to ensure that all teams have sufficient knowledge of the full landscape so they can do their share of integration testing.

## **Levels and check points for integration**

The levels for *Integration* are typified as follows:

- **Forming:** *Done is all done*
- **Norming:** *Integrate often*
- **Performing:** *Share knowledge*

Please find the checkpoints below.

### **Forming**

1. The project manager facilitates regular communication between teams by eg. organizing the scrum of scrums
2. Integration is being discussed between the teams
3. The agile delivery teams have a common DoD
4. The integrated solution is demo'ed to the stakeholders

### **Norming**

1. The integration responsibility is clearly defined
2. Cross team Integration activities are pro-actively executed
3. The system level integration tests are managed
4. Every team applies the continuous integration methodology

### Performing

1. Integration knowledge is shared between the teams
2. Teams apply continuous integration methodology on a common code base
3. Every team increment integrates to a working solution every iteration

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