Release Engineering
A guideline for successful software release

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Introduction

• Release Engineering is all about releasing the software to the world.
• It covers the aspect of Software Deployment.
• It’s a very critical stage of SDLC, especially in the SaaS world.
• Controlling the rollout of the software is also important.
• Release Engineer plays a key role.
• The paper is an effort to highlight the guidelines and the release flow.

The Process

• Pre-Release Process – Constitutes all the preparation to be done before releasing the software.
  ➢ Team Approval – Involves recording team’s (Engineering and management) approval to go ahead with the release (Go-No Go).
  ➢ Inform the Stakeholders – Involves sending out a notification to all the concerned parties (Marketing, Sales, Support, and Partners/Custumers).

• Release Process – Constitutes the actual release of the software to live servers.
  ➢ AV Scanning – Scan the build to ensure no file is infected.
  ➢ Build Archiving – Backup the previous build/version for future reference.
  ➢ Release to Staging – Release to mini-production environment.
  ➢ Release to Live Servers – Release the build to production servers.
  ➢ Post-Production Validation – Post release validation from production.

• Post-Release Process – Involves the phased rollout process to control the availability of new version to customers in SaaS model.
Phased Rollout Process – An Illustration

**Rollout Plan:**

- New Installs
- 5K
- 15K
- 60K
- Refresh
- 150K
- 250K
- Remaining Users

1. **Build Release Complete / Rollout Start**
2. First 5K set for upgrade
3. Any issues? (Yes/No)
   - Yes: Stop Rollout
   - No: Next 15K set for upgrade
4. Any issues? (Yes/No)
   - Yes: Stop Rollout
   - No:
   - Next 250K set for upgrade
5. Any issues? (Yes/No)
   - Yes: Stop Rollout
   - No: Queue upgrade for the remaining customers / machines
6. Rollout Complete