Agile Delivery Speed at Amazon
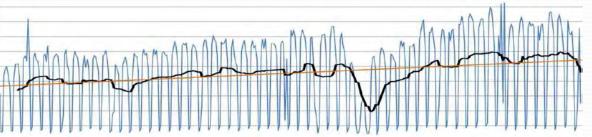
- Amazon adopted agile in 1999 and Scrum in 2004
- Using enterprise-scale continuous delivery by 2010
- 30K+ developers deploy over 136,000 releases a day

- **Software deployment every 11.6 seconds** (as of 2011)
  - → **24,828 to 86,320 releases per Iteration**
  - → **161,379 to 561,080 releases per Quarter**
  - → **645,517 to 2,244,320 releases per Year**
- **Automatic, split-second roll-forward & backward**
- **75-90% reduction in release-caused outages (0.001%)**
- **Millions of times faster (than traditional methods)**
  - → **4,357,241 to 15,149,160 per traditional release**
- **Thousands of times faster (than manual agility)**
  - → **161,379 to 561,080 per Scrum/SAFe release**
- **Used agile methods long before U.S. government (1999)**

Atlas, A. (2009). Accidental adoption: The story of scrum at amazon.com. *Proceedings of the Agile 2009 Conference, Chicago, Illinois, USA, 135-140.*
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Elisha, S. (2013). Continuous deployment with amazon web services. *Proceedings of the AWS Summit 2013, Sydney, New South Wales, Australia.*