Improving Developer Productivity

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Hello

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Agenda

- About JetBrains
- Develop
- Build

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About JetBrains

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About JetBrains

- Founded in 2000
- Rapidly growing
- Leaders in software tooling

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Key Products

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Kotlin

Server

Kotlin / JVM

Android

Kotlin / JVM

Kotlin

multiplatform
shared code

iOS

Kotlin / Native

Browser

Kotlin / JS

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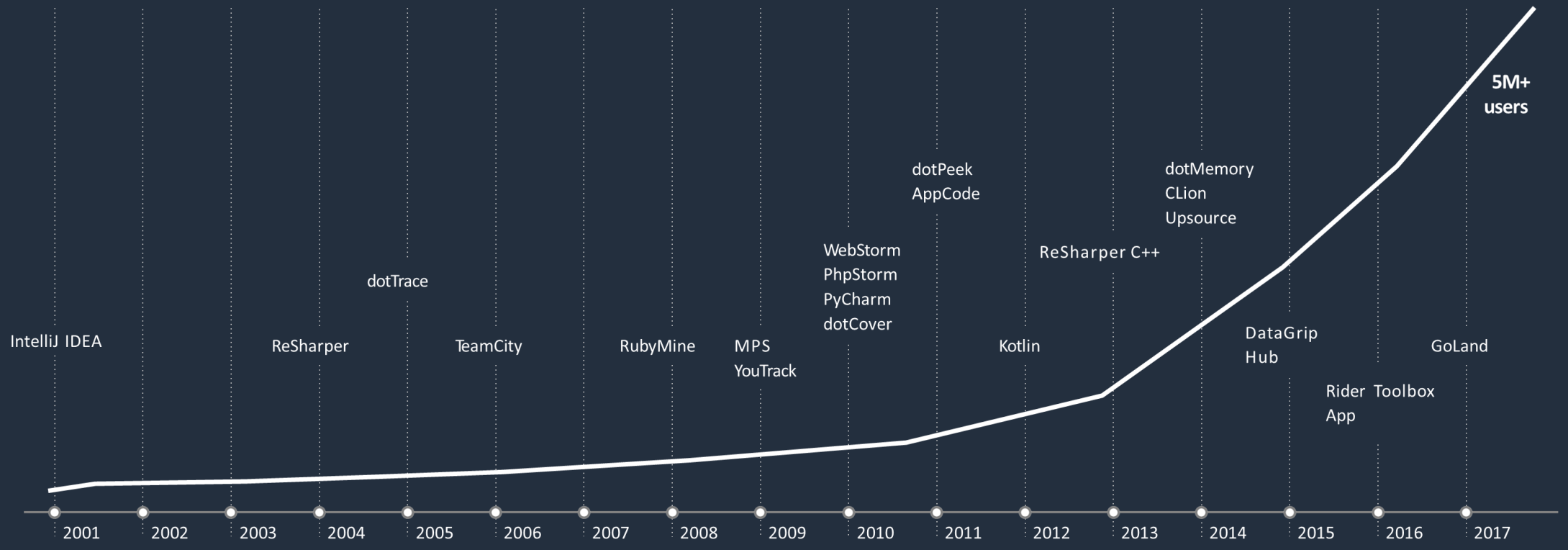
22 products launched to date



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Customer Highlights

- 95 Fortune 100 companies
- 409 Fortune 500 companies
- Over 5M total userbase

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Develop

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Value

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What slows developers down?

- Hard to learn complex codebases
- Technical debt

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Productivity Tools

- Develop better
- Test more effectively
- Make maintenance easier
- Onboard new developers faster

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Forrester Research

- 270 hours, per user, per year
- IntelliJ IDEA in a modeled organization of 1000 developers, and 500 testers. JetBrains commissioned the research that was independently executed by Forrester.

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Develop on AWS

- More flexibility
- More complexity
- Dev/prod parity
- Creating a development environment

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Built on AWS

- Hybrid cloud for our build server
- Plugins repository
- Hosted on CloudFront

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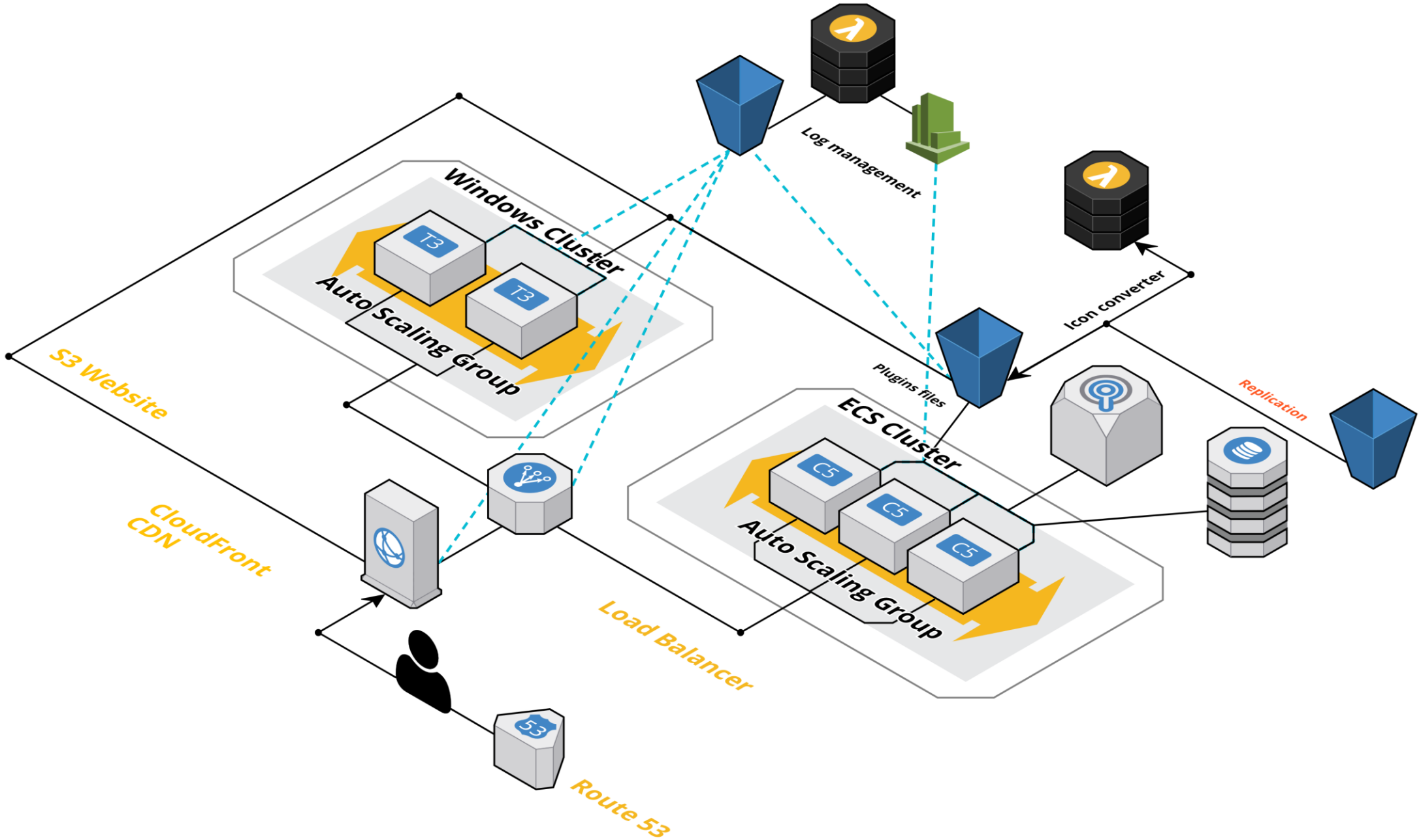
Log management
Windows Cluster
T3
T3
Auto Scaling Group
S3 Website
Icon converter
Plugins files
Replication
ECS Cluster
C5
C5
C5
Auto Scaling Group
CloudFront
CDN
Load Balancer
53
Route 53

Develop on AWS

- SSH support
- Docker support
- Amazon plugin for AWS Lambda development

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Build

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Continuous Integration & Continuous Deployment

- Complex

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JetBrains Buildserver

- 1 server, with a failover server
- Around 700 agents
- Hybrid cloud: vSphere on-prem, and AWS

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JetBrains TeamCity

- Works out of the box
- Build pipelines
- Project hierarchies
- Granular user management
  - Active Directory / SSO
- Configuration as Code (Kotlin DSL)
- Easy updates

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Cloud Agents

- Automatically spin up build agents when needed: elastic capacity
- EC2 agents with per-project AMIs
- ECS agents on EC2 or on Fargate
- Hybrid Cloud

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Artifact Storage

- S3

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Build pipelines

- Pull-based
- About 9000 hours of build time daily
- About 7000 hours of builds not run
- Over 40% efficiency gain

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Developer Productivity

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Build software

- Use technical debt in the right way
- Manage complexity
- Deliver

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Thank you

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