SUMMIT

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JBoss Enterprise Application Platform at Intuit

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Introduction to Intuit

Intuit Inc. is a leading provider of business and financial management solutions for small and mid-sized businesses; financial institutions, including banks and credit unions; consumers and accounting professionals. Our flagship products and services, including QuickBooks, Quicken and TurboTax software, simplify small business management and payroll processing, personal finance, and tax preparation and filing.

JBoss at Intuit?

Doesn't Intuit just build desktop software like TurboTax and QuickBooks?

Not Anymore!

Intuit Software Background

Back in 2002, most developers were relatively new to Java & server side development.

Older online applications were built before application servers such as JBoss were widely available

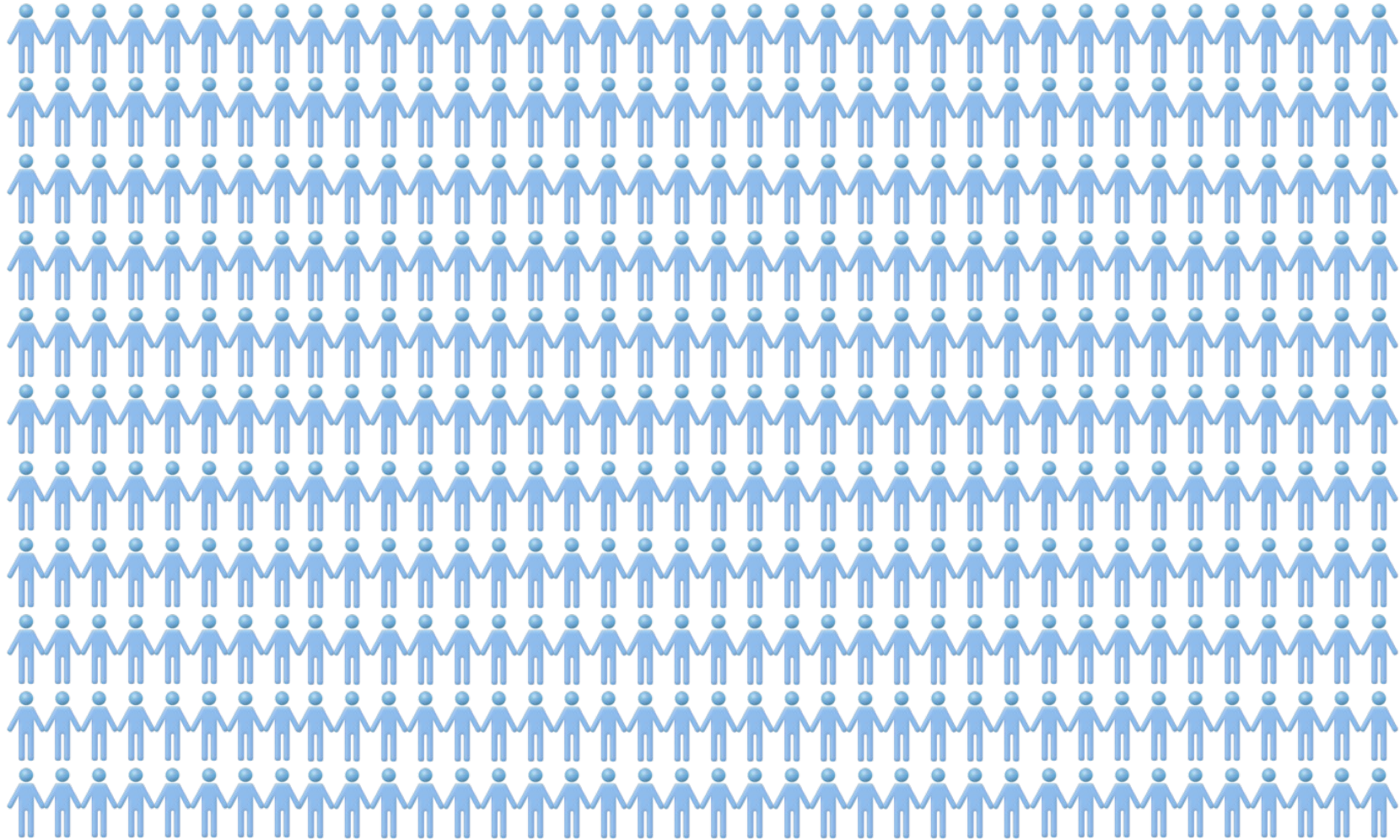Company-wide shift to web-based applications and services in last two years. As a result...

Of the 20M who prepared their taxes using TurboTax..

Two thirds used TurboTax Online
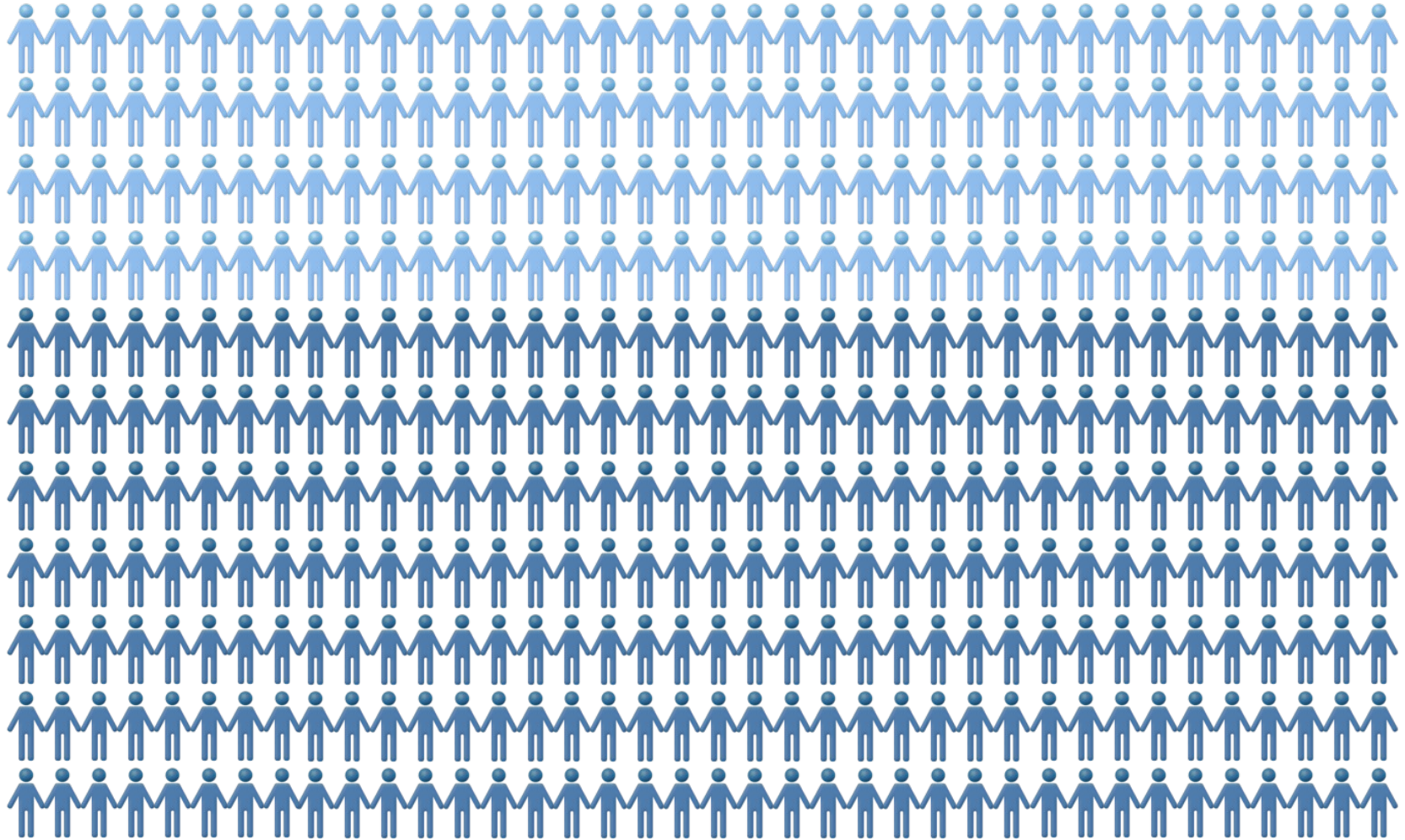
More than 7M small business customers using a variety of software *and services*

Online Payroll

QuickBooks Online

Go Payment

Intuit Websites

Intuit® QuickBooks® Merchant Service

Power online banking for 9.2M people through 1,900 banks & credit unions
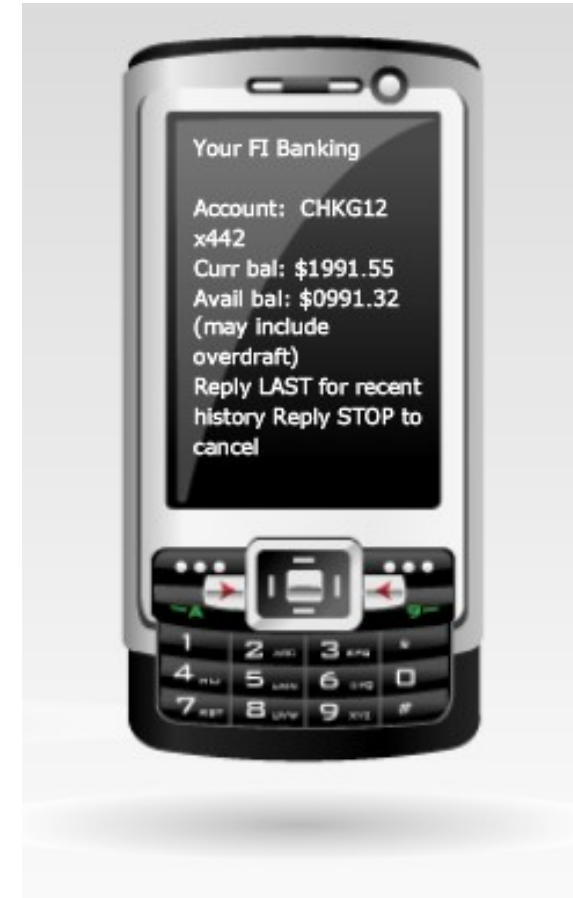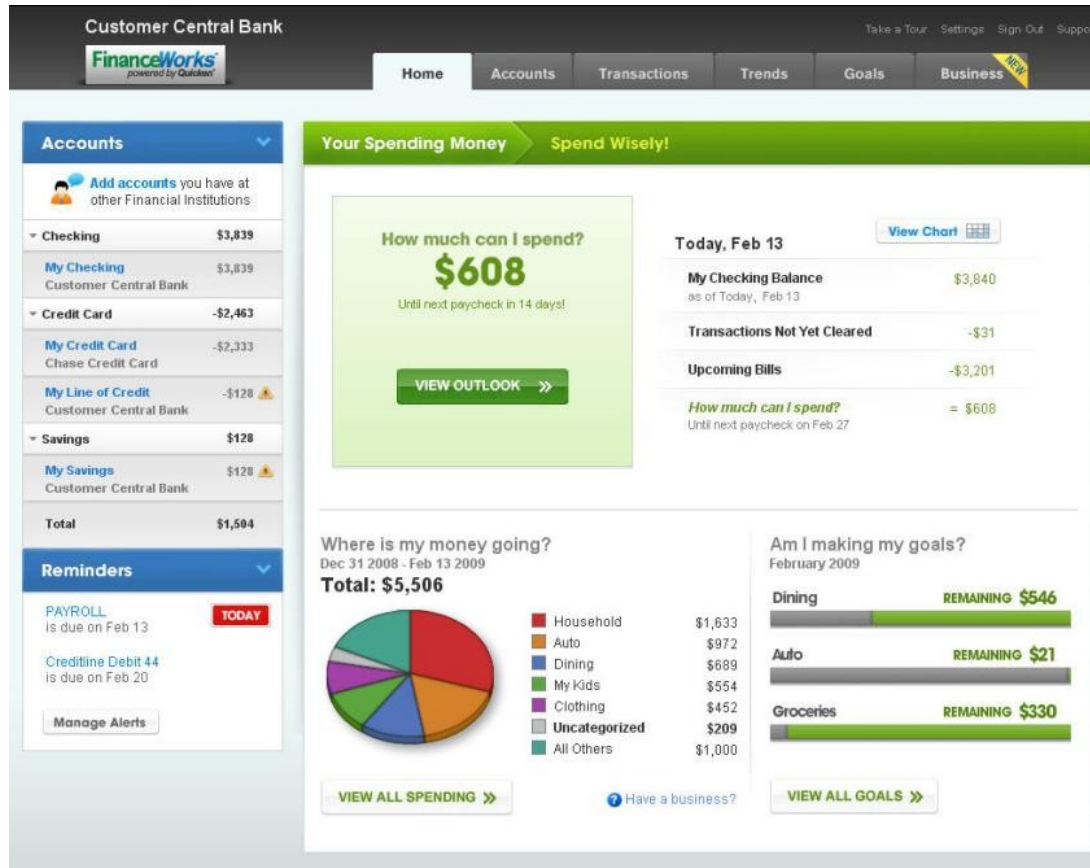
This year's estimated revenue

$1B SaaS

JBoss at Intuit

JBossAS user since 2002

Adoption of EAP December 2007

JBoss customer since June 2005

JBossAS versions 3.2.3, 4.0.2, 4.0.3, 4.0.4, 4.0.5

EAP versions 4.2, 4.3, 5.0

EJB3, Cache, AOP, WS, Web/Tomcat, Hibernate

Introduction to Web & Hosting Platform (WHP)

Provides

- "Intuit" customized JBossAS/EAP
- "Intuit" custom modules
  - Authentication Module – JAAS integration with our authentication system, valves to handle OAuth based authentication
  - Activity Logging Module– Servlet Filters, WS Interceptors, EJB Interceptors to do generic trace/message logging
  - Wily and Splunk integration Module
- Internal JBoss support

JBoss @ Intuit History

Enterprise Application Platform vs. Community

Enterprise Application Platform vs. Community

1.6 release: JBossAS 4.0.4 with the following patches/add-ons:

    EJB 3.0_RC7-FD

    JBossAOP 1.3.6

    JBossWS 1.0.0.GA

    JBWS-1001, JBWS-943

1.7 release: JBossAS 4.0.5 with the following patches/add-ons:

    JBossWS 1.2.1.ga.cp01.jbpapp-415

    JBossWS Core 1.2.0SP1.200704161459

    EJB 3.0_RC9_Patch_1

    JBossAOP 1.5.2.GA

    JBossTS 4.2.2.GA

    JBWS-1001, JBWS-1204, JBWS-943

    JBoss-xml-binding-1.0.1.TEST

Enterprise Application Platform vs. Community

1.8 release: JBossAS 4.0.5 with the following patches/add-ons:

EJB 3.0_RC9_Patch_3

JBossWS Core 12.0SP1.200705061341

JBossAOP 1.5.2.GA

JBossTS 4.2.2.GA

JBWS-1001, JBWS-1204, JBWS-943

JBoss-xml-binding-1.0.1.TEST

Enterprise Application Platform vs. Community

2.0 release: EAP 4.2.0CP01

    No additional patches/add-ons

2.1 release: EAP 4.2.0CP02

    No additional patches/add-ons

4.0 release: EAP 4.2.0CP02

    No additional patches/add-ons

5.0 release: EAP 4.3.0CP02

    No additional patches/add-ons

5.1 used: EAP 4.3.0CP02 with the following patches/add-ons

    jbossws-native-2.0.1.SP2_CP03

    A patched jboss-ejb3.jar (unknown version)

    A patched jboss-aop-jdk50.jar (unknown version)

Enterprise Application Platform vs. Community

5.3 release: EAP 4.3.0CP04 with the following patches/add-ons

jbossws-native-2.0.1.SP2_CP05_JBPAPP-1937

A patched jbosssx.jar (unknown version)

6.1 release:

EAP 4.3.0.CP06

No additional patches/add-ons

EAP 5.0 with the following patches/add-ons

JBPAPP-4045

SECURITY-490

JBPAPP-3082

JBPAPP-3759

JBPAPP-3879

JBPAPP-3812

Community Patch (In)Stability

JBWS-1001

"OK, I have verified that these failures are due to tests
against a newer version of JBossXB, as well as a test
run problem that expects an ejb3 client jar that does not
exist in 4.0.4 So IMO we are ok to release."

JBWS-1204

"I have a problem invoking an RPC style service. It used
to work on jbossws-1.0.2.GA but now fails on 1.0.3.GA"

Community Patch (In)Stability

JBossAOP 1.3.6

> Upgrade jboss-aop to 1.3.6 to cope with incompatibiliets in javassist 3.2.0CR1

JBossAOP 1.5.2

> "Is it possible there is an incompatibility with AOP dated 9-22-2006 currently bundled with JBoss 4.0.5.GA?"

> "You will probably need to run the installer and pick the EJB 3.0 option to see the issue."

Support Ticket EAP vs. Community

Community

    June 2005 – August 2008

    304 JBossAS tickets, ~8/month

    22 Severity 1 (Urgent) or 2 (High) tickets

EAP

    August 2008 – November 2009

    117 tickets, ~7 /month

    71 Severity 1 (Urgent) or 2 (High) tickets

Intuit Cloud
Packaging, Provisioning

Intuit Cloud - Packaging

Standardized on RPM packages

Ability to install, upgrade, uninstall individual modules

Web interface to track installations via RPM queries

Provides ability to notify customers of critical patches, upgrades, and issues

Yum groups for commonly used components (e.g. custom modules)

Intuit Cloud - Provisioning

Web-based

RHEL 5 VMs

WHP provisions both JBossAS and EAP

Apache Web Server

Oracle DB

Project VM Instances

Provisioning

VM Details

Provisioning Lessons Learned

Stay as "stock" as possible

   Pushback on modifications to base JBoss

   Customizations incorrectly blamed for issues (e.g. Cargo interoperability)

Modularity

   No "big bang" releases

   Adds complexity, but allows upgrades to individual components

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