



SafeExamBrowser Use Cases & How To

Daniel R. Schneider, Project Leader and Lead Developer SEB
Educational Development and Technology (LET), ETH Zurich

eduhub days 2017, February 9/10, 2017

Introduction



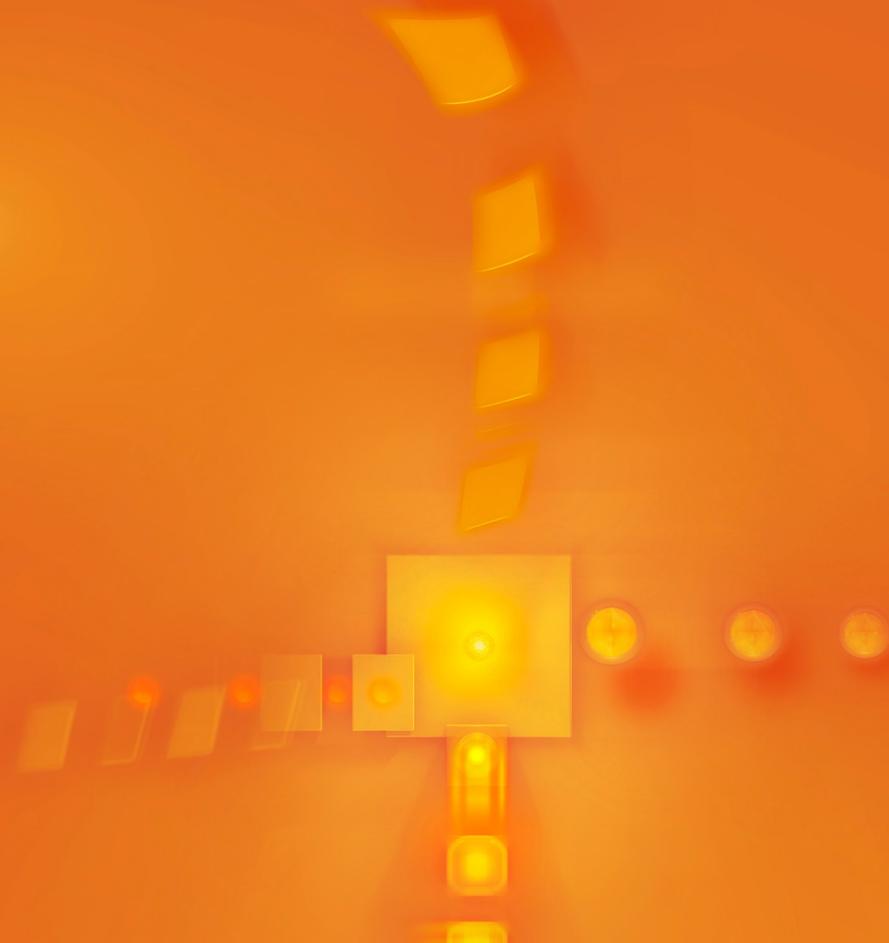
What is Safe Exam Browser (SEB)

- Secured web browser application
- For conducting exams on computers (Windows/Mac OS/iOS) using web-based
 - exam systems
 - quiz modules of learning management systems
- Exams using third party applications

But SEB is more...

- It is a safe environment to run exams
- Add-on free
- Clean user interface
- No disturbances from updates and social media
- Enabling new kinds of exams, which have a better alignment with the real world
- Helps ensuring fairness in exams
- Modular and highly configurable
- Allow third party applications and additional resources, open book exams
- Security and measures to prevent cheating (retrieving unwanted information and communicating)

Use Cases



Use case classification

Exam type:

- A. Browser exam
- B. Third party applications

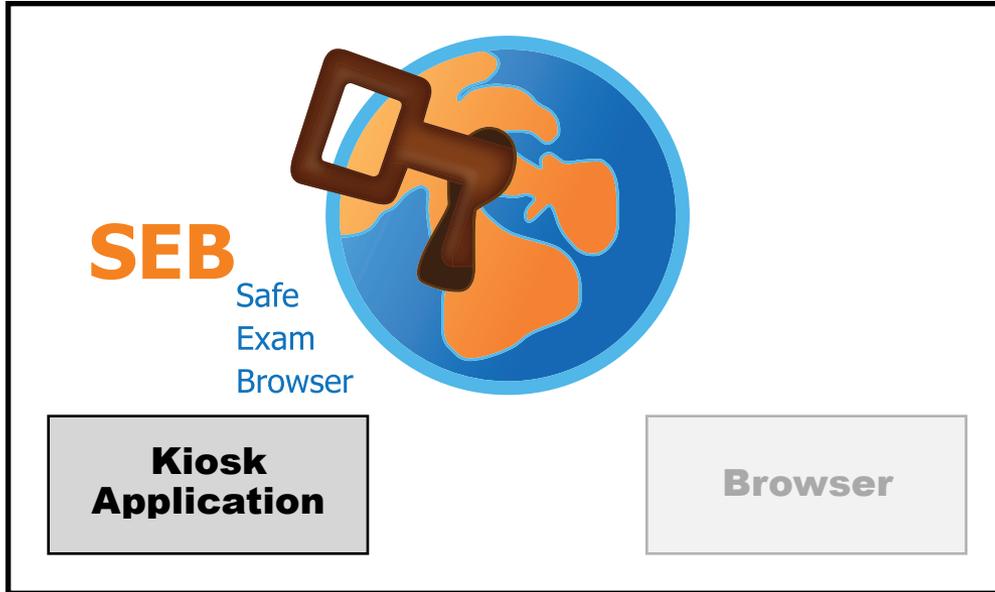
Exam clients:

1. Managed devices (computer labs, MDM)
2. BYOD

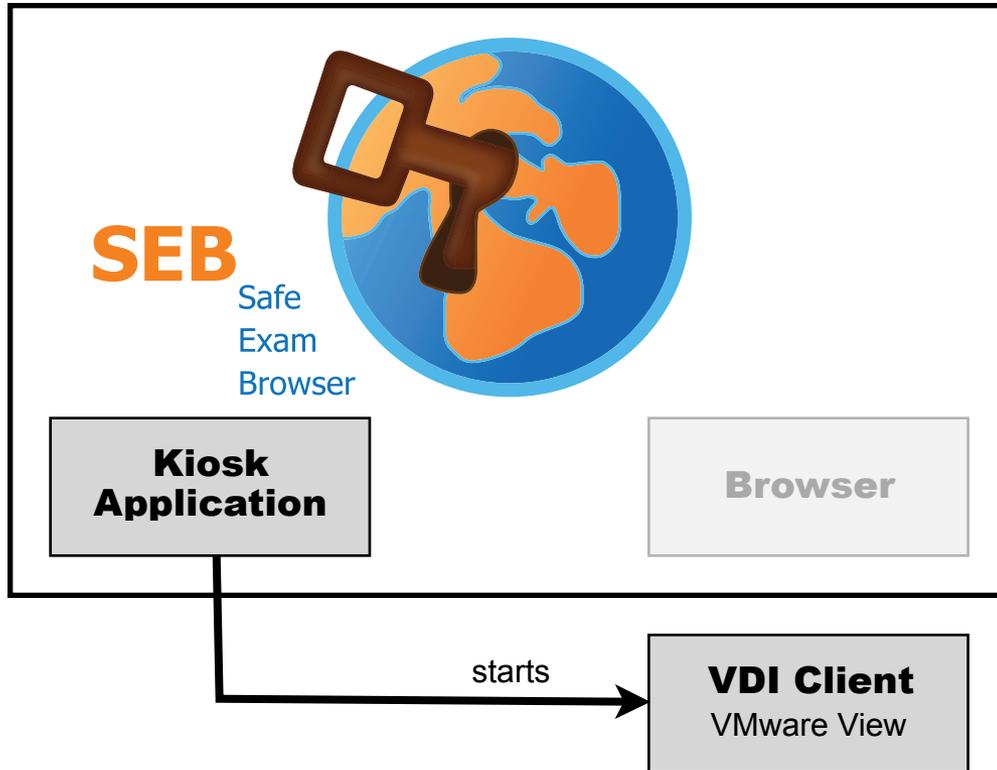
Most important consequence:

B-2: Virtual desktop infrastructure (VDI) required!

SEB with VDI

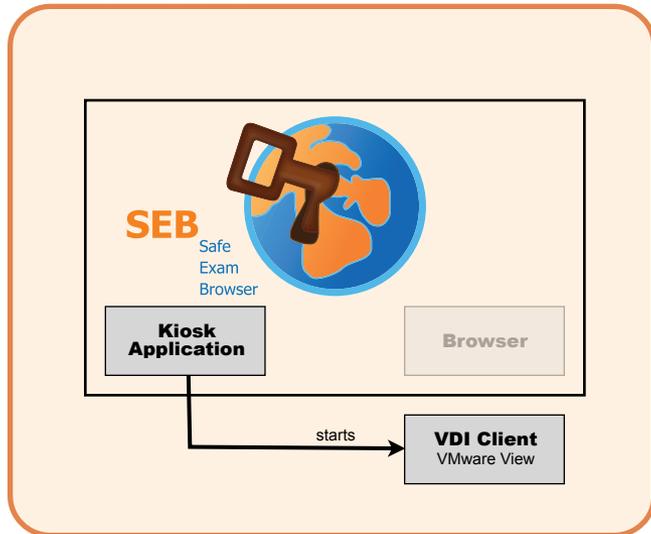


SEB with VDI



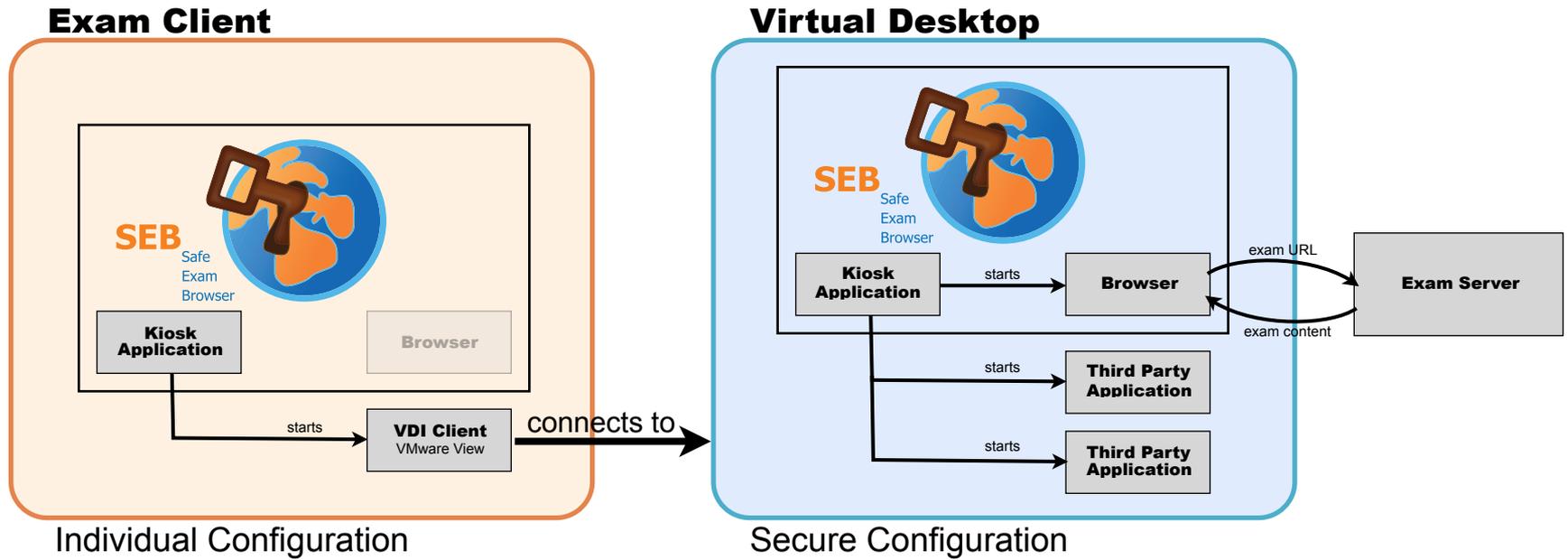
SEB with VDI

Exam Client



Individual Configuration

SEB with VDI



How to deploy and configure SEB

Managed devices in computer labs

- Use a deployment system
- Windows packaging: SEB installer + client config file
- Use certificates (cryptographic identities) for config encryption
- Use an exam portal page or a dynamic exam link
- From SEB 2.2: Place individual exam config files into exam course (upload as course resource)

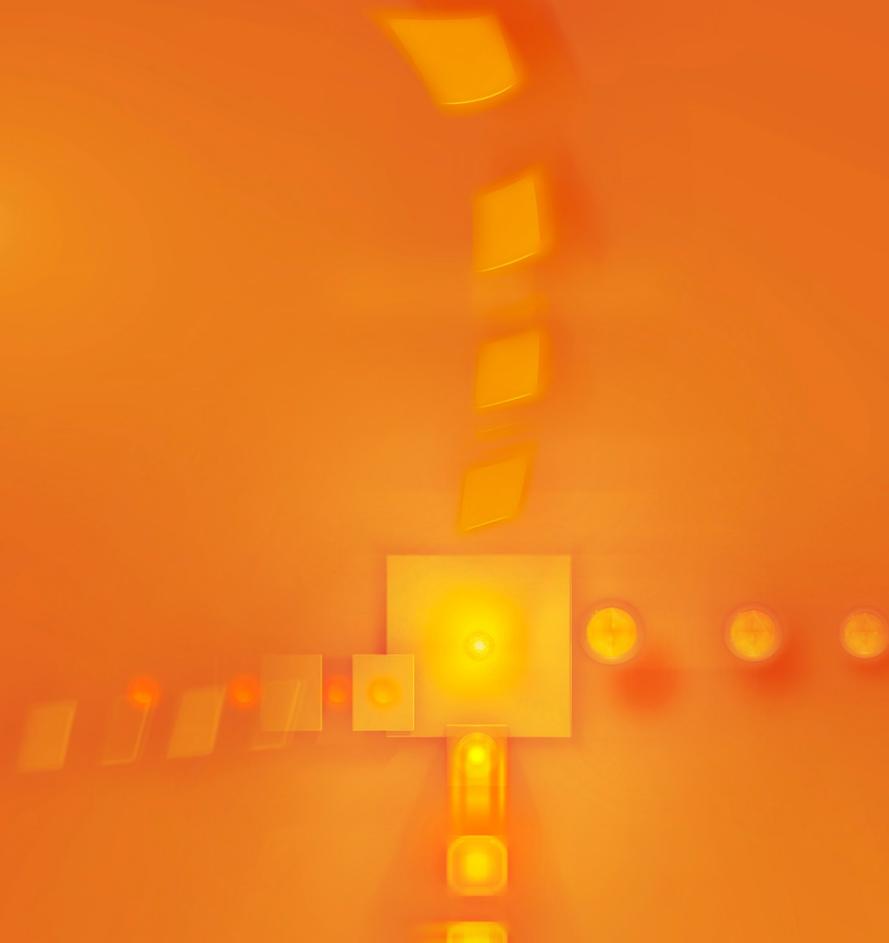
- Testing, testing, testing!

How to deploy and configure SEB

BYOD

- Send instructions on installing and configuring SEB to students well in advance, provide support
- Use a seb(s):// link to configure clients
- Use a mock/demo exam to test if it worked (testing!)
- Use an exam portal page & no quit password or quit link on portal/start page
- Use a settings password to start the exam
- Use the Browser Exam Key authentication
- Regulations: Require backups! Very good proctoring!

What's New



SEB 2.2

- Release for Windows, macOS, iOS
- Opening of additional resources in additional browser windows, accessible via individual icons and popup menus placed in the SEB task bar (configurable per exam).
- Additional resources can be embedded in SEB configuration files: Offline exams
- Improved opening of SEB configuration files (by `seb(s)://` links): Config files can now also be placed on authenticated servers, login session is remembered (also in Win version)
- Improved URL filter also in SEB for Windows
- New settings for audio (mute, preset level)

SEB for iOS

- For iPads and also iPhone/iPod Touch running iOS 9.3.5 or newer
- Works on managed iOS devices and with BYOD
- Supporting most setting options of the SEB desktop versions
- Easier initial configuration or just start SEB with a seb(s):// link from Safari, Mail or a message.
- Opening of permitted resources (HTML, PDF etc.) in additional browser tabs (SEB for iOS 2.2)
- With embedded additional resources offline exams are possible

**Thank you for your attention.
Please discuss...**

Daniel R. Schneider

daniel.schneider@let.ethz.ch