



CERN AppStore

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About us



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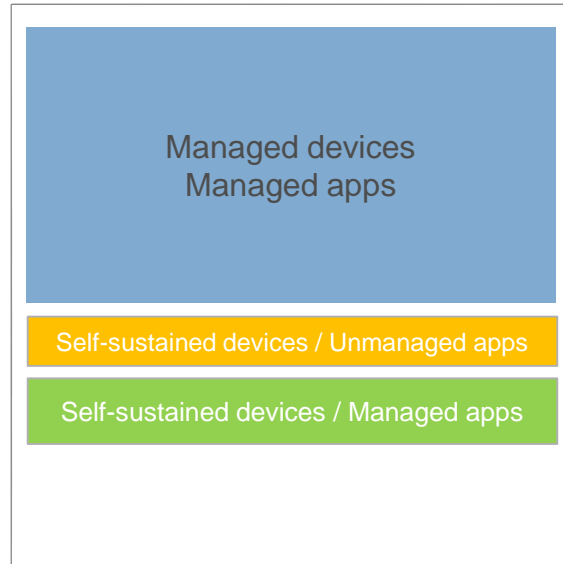


Motivation

- Until now, centrally managed computers
 - Member of the CERN domain
 - Updates, apps provided by CERN
- Shift in the device management model
 - *Extending* with BYOD
 - Remove dependencies:
 - Being part of the CERN domain
 - Having access to specific file shares

Motivation

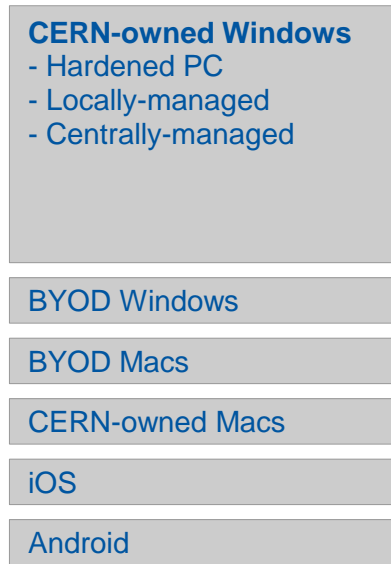
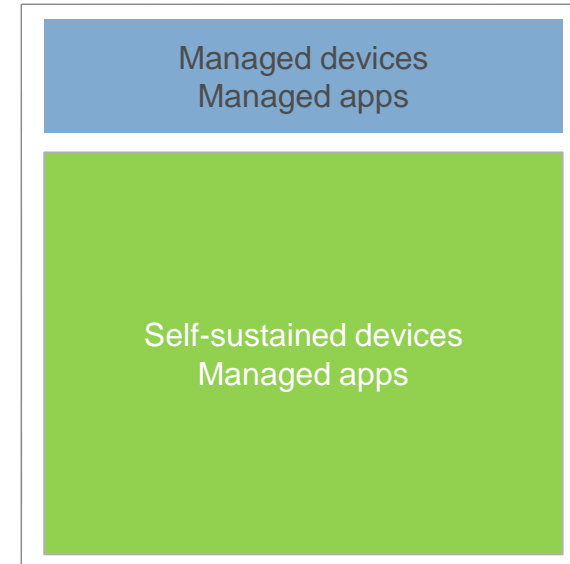
Managing devices



change of focus



Managing apps



Objective

- Unified platform for application provisioning
 - Mobile and desktop
(Android, iOS, Windows, Linux, Mac)
 - Avoid vendor locking
- Only application management
 - License management and provisioning
- Benefit from existing distribution tools
 - Platform specific stores
 - Package managers:
(Chocolatey, Flatpak)
- Data privacy protection
 - Gather usage metrics
 - In-house control of the data
- Reasonable cost
 - Based on user and device number



Platforms

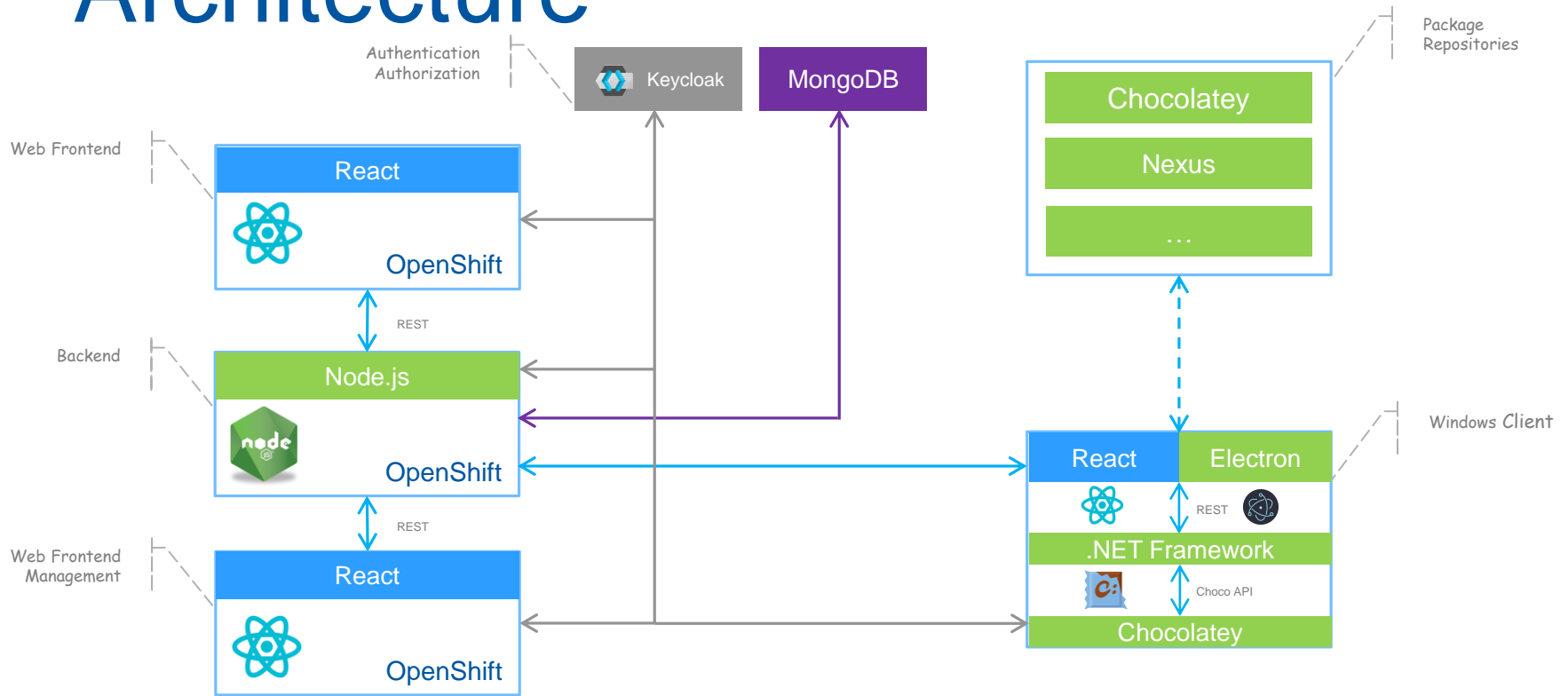
Web Interface

- Application catalogue for **mobile** and **desktop** devices
- Using the platforms' native application stores

Electron client

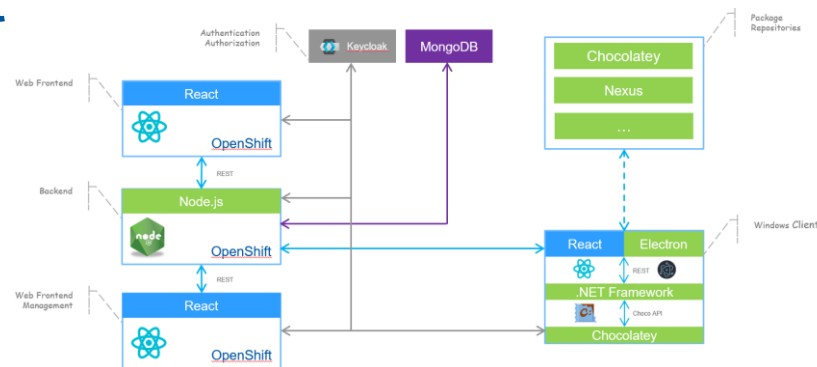
- Application catalogue for **desktop** BYOD
- Platform independent front-end + platform specific package manager

Architecture



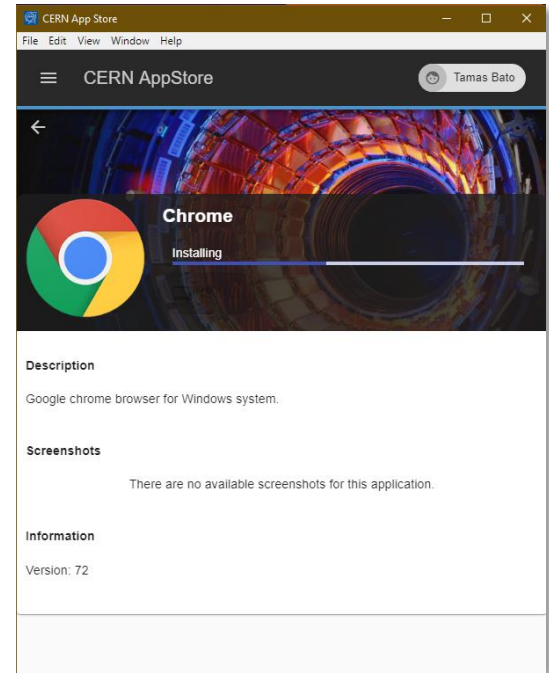
Deployment

- Containerised deployment
 - MongoDB
 - Frontend and backend
 - Deployed to *OpenShift*
 - Web hooks with GitLab repositories



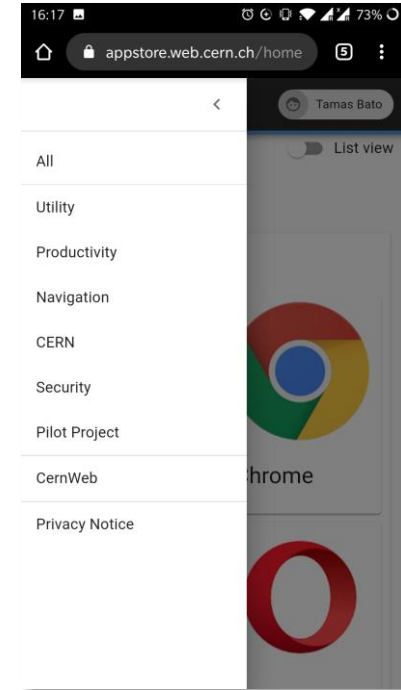
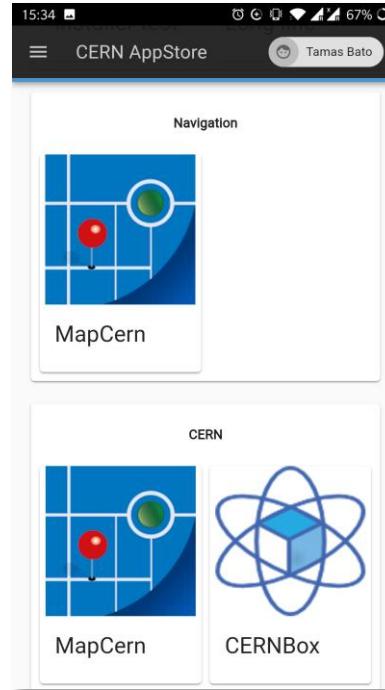
Windows client (Desktop)

- Electron + React
 - Keycloak SSO integration
- Platform dependent layer
 - C# .NET
 - Chocolatey package manager
 - .NET library [chocolatey.lib]



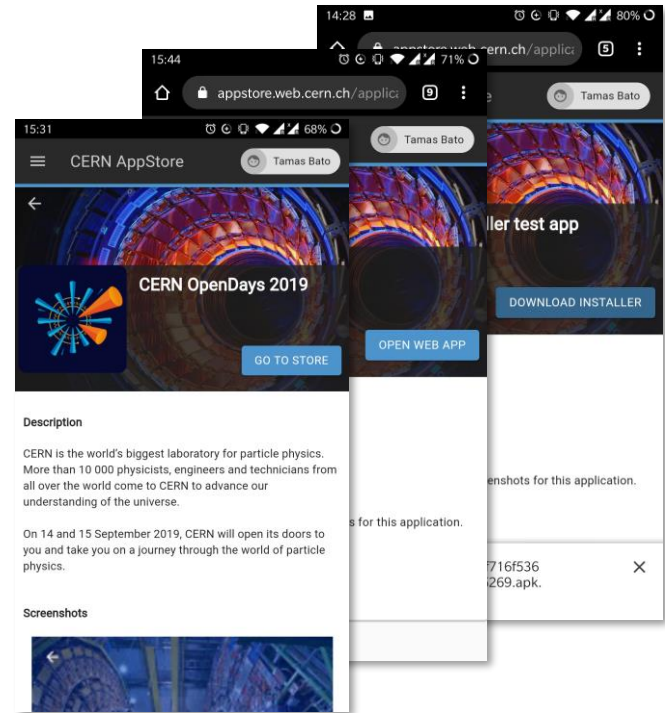
Client (Web)

- Applications can be categorized
- Access to categories can be restricted
 - User roles

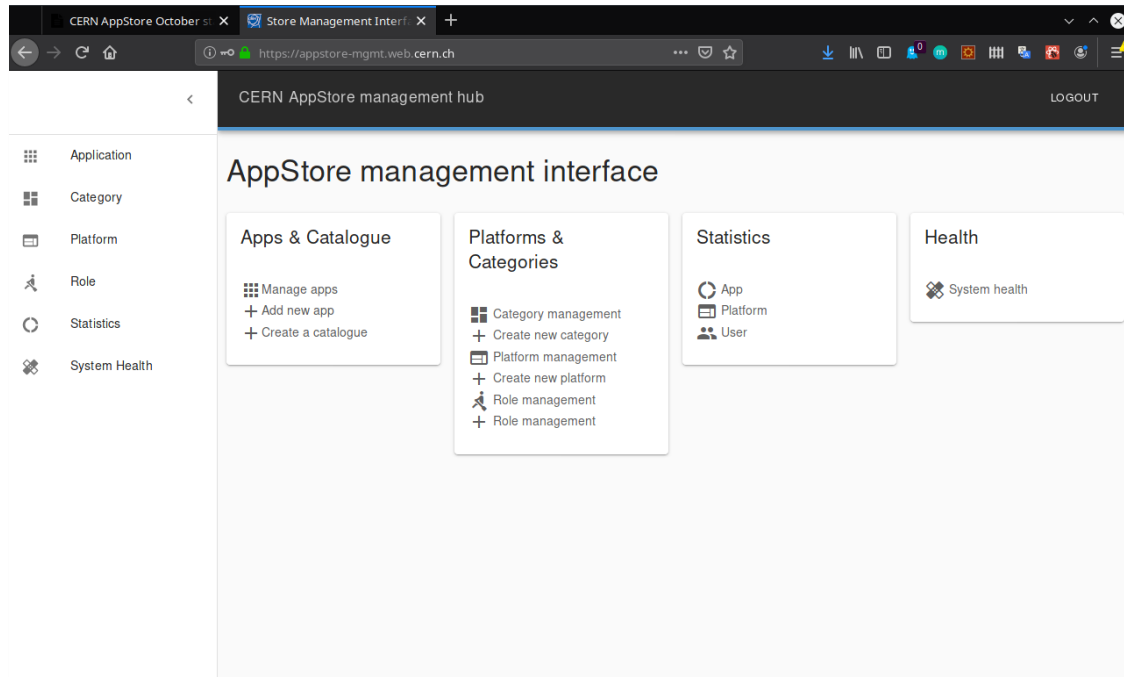


Distribution of applications

- Platform's app store
- As an installer
- As a web application
- From a local repository (licensed software)

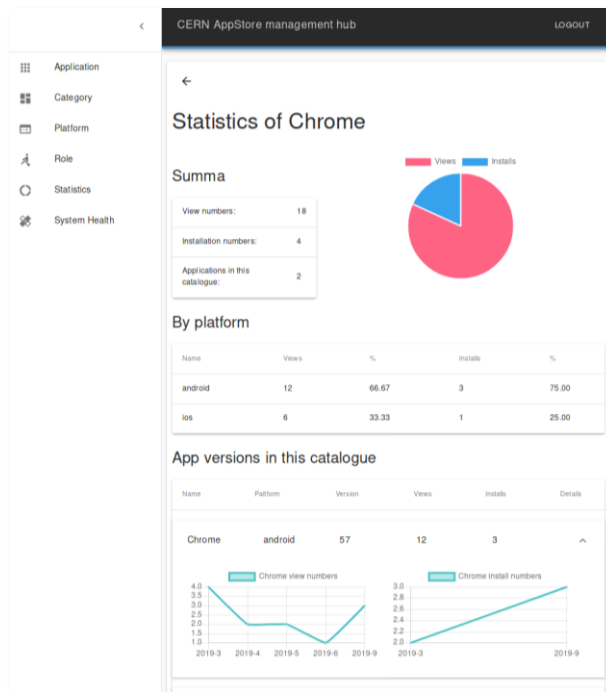


Management interface



Usage metrics

- Collecting basic usage data
 - View and installation numbers
 - Registered user numbers
 - Visits
- Chart.js 2 JavaScript library
 - It has React componentised version



Future

- Adding new platforms
- Plan to make it open source
 - Currently under development
 - After the first stable internal release

Thank you!

