APISEC

Secure APIs for fintech companies

DistriNet

Context and motivation

Context and motivation
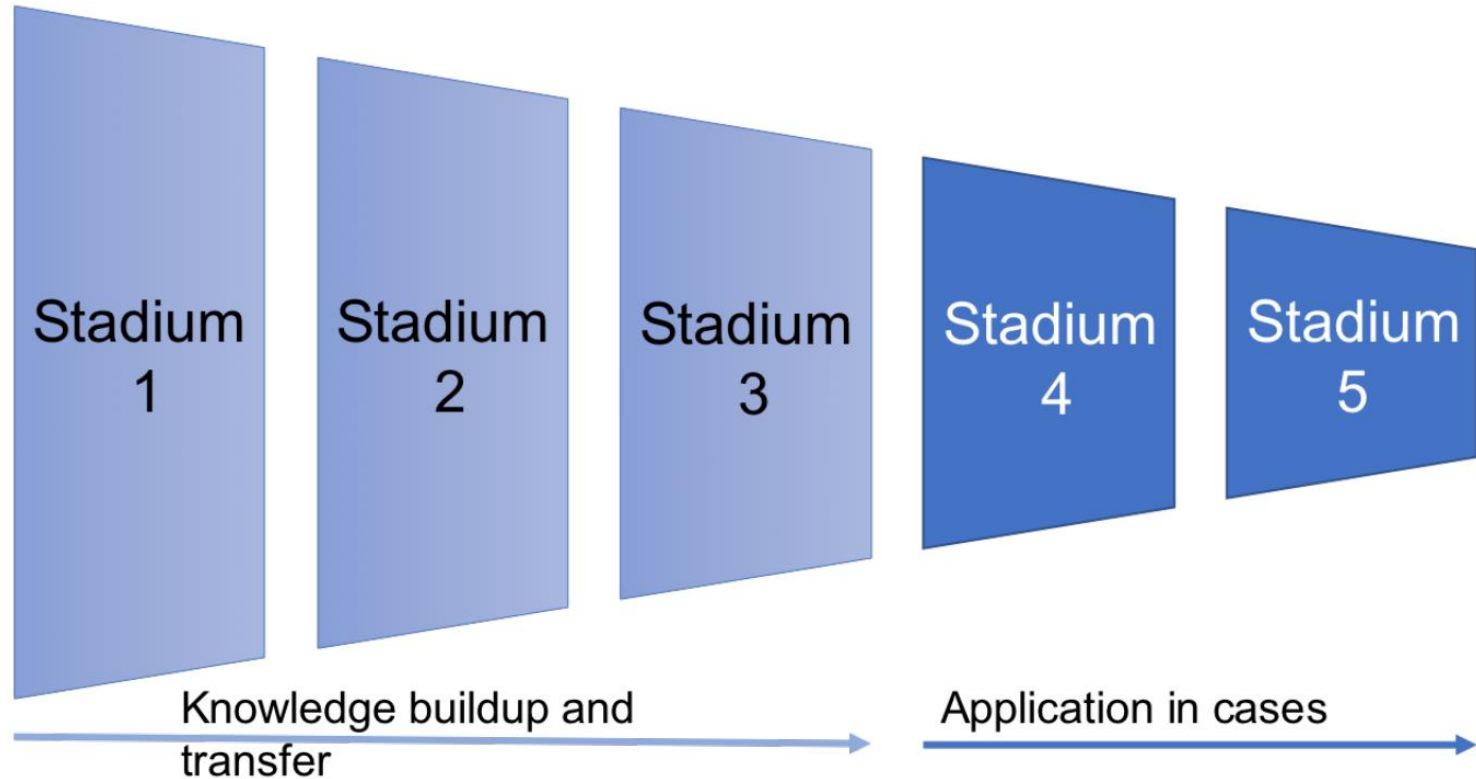
Context and motivation
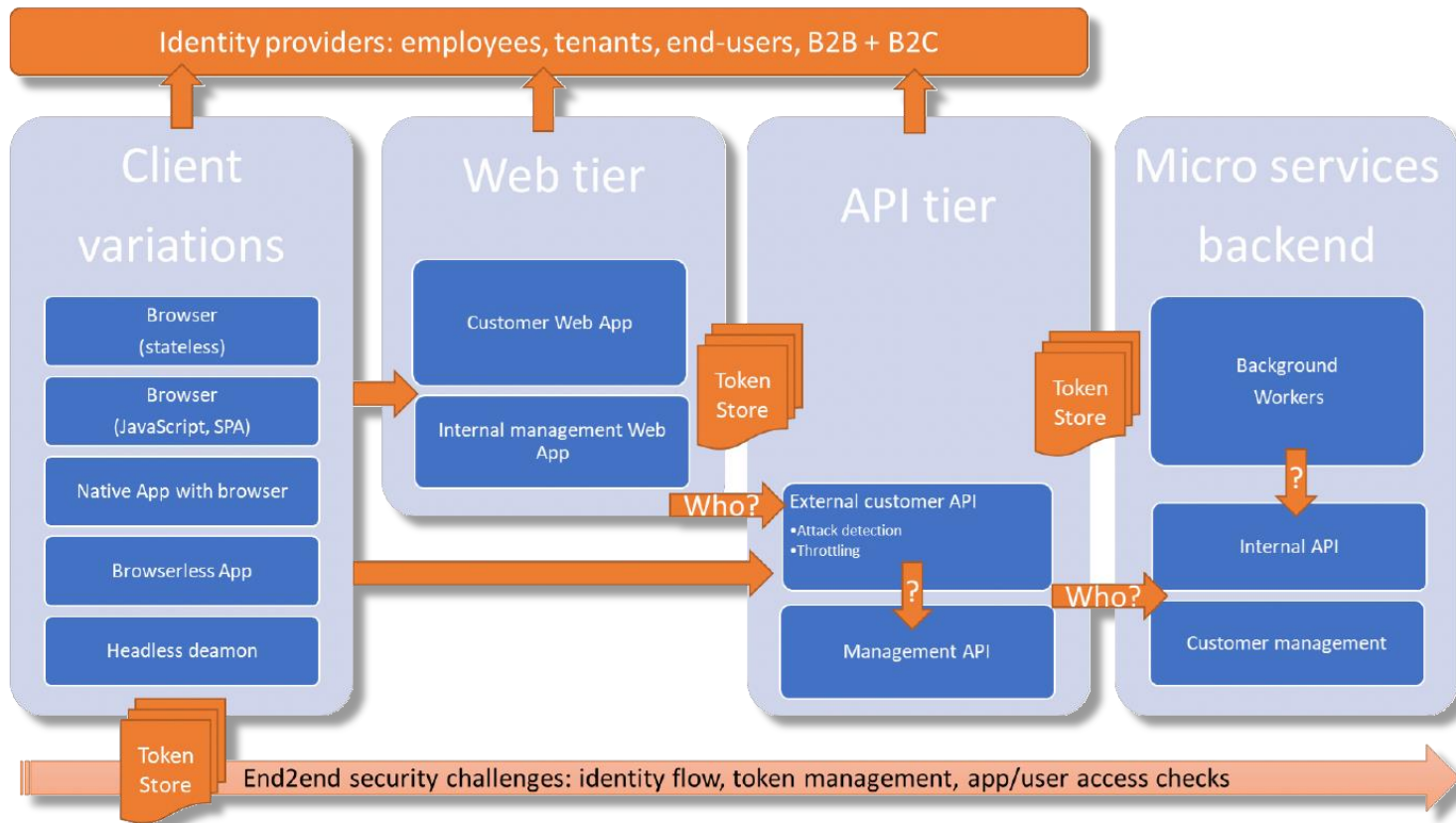
› Akamai observed 85,422,079,109 credential abuse attacks over a 2-year period

  ›› 473,518,955 against financial services, or ~ 650,000 attacks/day

  ›› 20% were against obvious API endpoints

Financial Services — Hostile Takeover Attempts
https://www.akamai.com/uk/en/multimedia/documents/state-of-the-internet/soti-security-financial-services-hostile-takeover-attempts-report-2020.pdf

Context and motivation

> "Finally, API usage and widespread adoption have enabled criminals to automate their attacks. This is why the volume of credential stuffing incidents has continued to grow year over year, and why such attacks remain a steady and constant risk across all market segments.

Financial Services — Hostile Takeover Attempts
https://www.akamai.com/uk/en/multimedia/documents/state-of-the-internet/soti-security-financial-services-hostile-takeover-attempts-report-2020.pdf

Aim of the project

› One main goal: ***knowledge building and transfer with regard to safe and robust use of APIs***

›› End-to-end architectures, blueprints, and trade-off analyses

›› Security of API clients

›› Server-based security

DistriNet

Phased approach

Stadium 1 | Stadium 2 | Stadium 3 | Stadium 4 | Stadium 5

Knowledge buildup and transfer

Application in cases

DistriNet

Timeline

MARCH 2020
Kick-off
Official start of the project

FEB 2022
End of group guidance
End of project for the research partner; start of the development of company-specific cases

FEB 2023
End Project
End of the project and deadline for submitting company-specific cases

DistriNet

Agenda

› Welcome & Intro

› Presentation "API Security, a nightmare?"

› Plan of action

› Presentation of the partners

› Virtual networking event

DistriNet

API Security, a nightmare?

Erwin Geirnaert, Shift Left Security

Plan of action

COOCK program

› Flemish Government Decree to regulate support for projects Collective R&D and Collective Knowledge Dissemination (COOCK)

  »» Valorisation of (basic) research results by accelerating the introduction of technology and / or knowledge at a wide group of companies

  »» Translating new technology, new knowledge and transferring it to usable concepts / prototypes that respond to common needs of and / or offer new market opportunities to a wide range of companies

DistriNet

COOCK project

COOCK project = 2 complementary parts

Part A
support to research
organizations

Part B
support
companies

DistriNet

Activities within COOCK part A: what to DO ...

› **Collective research: TRANSLATE research**

(possibly knowledge building and / or generic cases)

› **Broad knowledge dissemination**

(seminars / publications, workshops, lectures, ...)

Activities within COOCK part A: what NOT to do...

› 1-on-1 activities with companies without (or insufficient) generic learning component

› Prenormative activities, tests required for registration, education / training

› Strategic basic research

› Pure roadmap studies / market studies / preparation of internationalization strategy

› Basic operation of research organization

› Cluster organizations, federations or collective centers

› Policy preparation work

DistriNet

APISEC part A

› Interactive seminars

  »» Hands-on workshops with specific technologies

  »» Group coaching on trade-off analysis

› Public deliverables

  »» white papers, evaluation grids and implementation examples

› Public outreach

  »» seminars, workshops, conferences and other events

DistriNet

Part B… company-specific cases

› Requirements?

›› Unique and clear link with part A.

› Support can be applied for through support programs VLAIO

›› SME portfolio, development projects, SME growth subsidies, ...

›› Cases at the company's own expense also count towards KPIs

DistriNet

Interact with partners

› A meeting about monthly

»» Presentations from technology experts and partners

»» Interactive round table

»» Discussion of fintech use cases

»» Clustered knowledge transfer

› Parallel: building a long-term knowledge center

DistriNet

Presentation of the Partners

Thank you!

https://distrinet.cs.kuleuven.be/