FDC³

October 24th, 2017

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FDC3 Technical Members

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BGC Partners	Alexei Samonov
Cloud9	Zeno Lee
Factset	Jason Dennis, Bilal Dinc
JPM	Richard Roberts
Lord Abbett	Murugesan Kandasamy, Gurpreet Singh
Morgan Stanley	Peter Smulovics, Ian Alderson
RBCCM	Espen Skogen, Simon Carley
Thomson Reuters	Jorge Santos, Saori Fotenos
TP ICAP	Adrian Brown, Reid Philpot
Wellington	Ed Broach, Ramanjit Sidhu

Agenda

- Introductions

- Charter

- Technical Proposal

- Next Steps

Introductions

- By joining the WG, members are committing to being stakeholders for adoption of agreed upon standards within their organizations.

- WG members must be a stakeholders in interoperability issues within their organizations and come to the WG with these problem sets well articulated.

- Each organization will be expected to present on their specific problem sets, and ongoing membership will be contingent on the ability to explain organizational interop problems and having the capacity to drive solving them via the standards set out in the group.

Review Charter Proposal and Vote

Technical Proposal

Financial App Directory

- Central directory for application identity

- Critical fields:

  - Name

  - Description

  - Screen Shot

  - Owner Info

  - Web App —> URL to manifest (must be https)

  - Native App —> Code Signature

- Web services will enable apps to make use of the App Directory for authentication

Financial Desktop Connectivity Service (FDCS)

- Orchestrates connectivity workflow

- Starts up Apps

- Connects to the App Directory to verify identity

- Verifies manifests and signed code

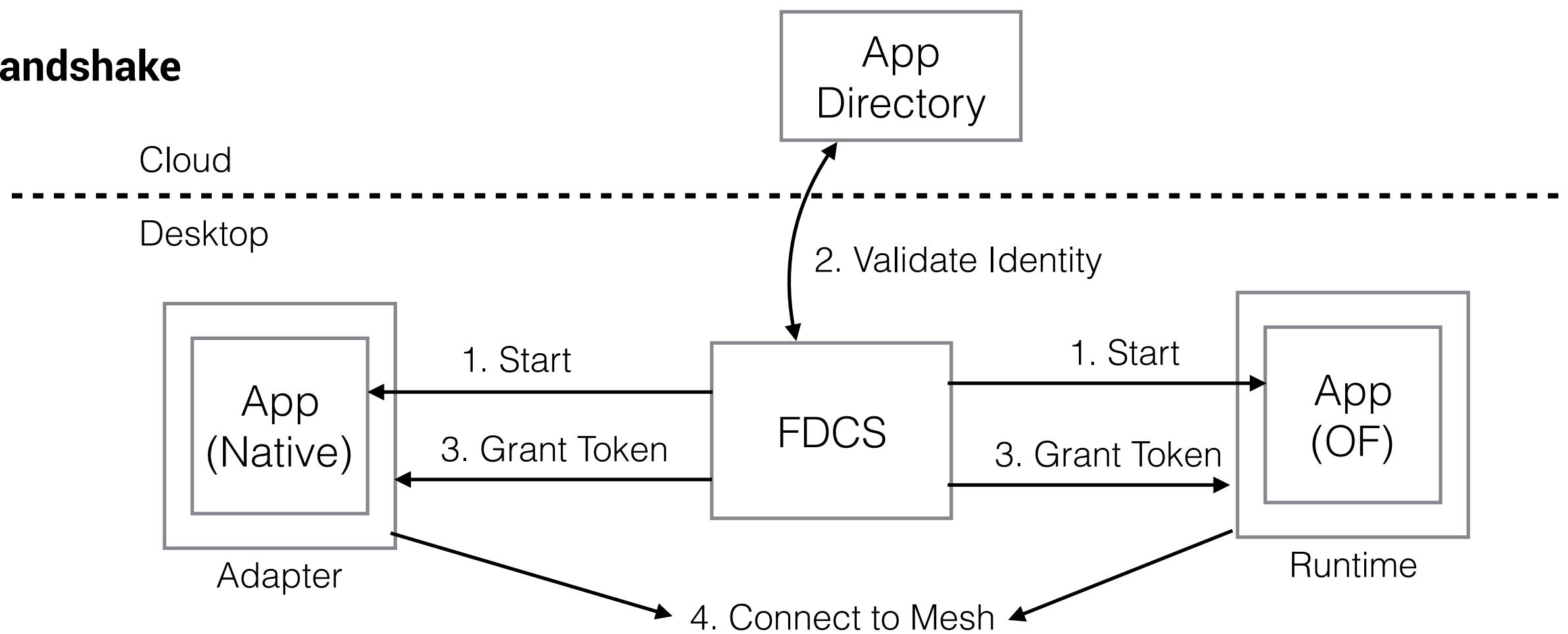- Grants and validates session tokens

Start Up

- Event triggers FDCS to start App

- FDCS checks App Directory for identity

- FDCS grants a session token to the App (pairing of manifest URL, UUID, timestamp / signature matching)
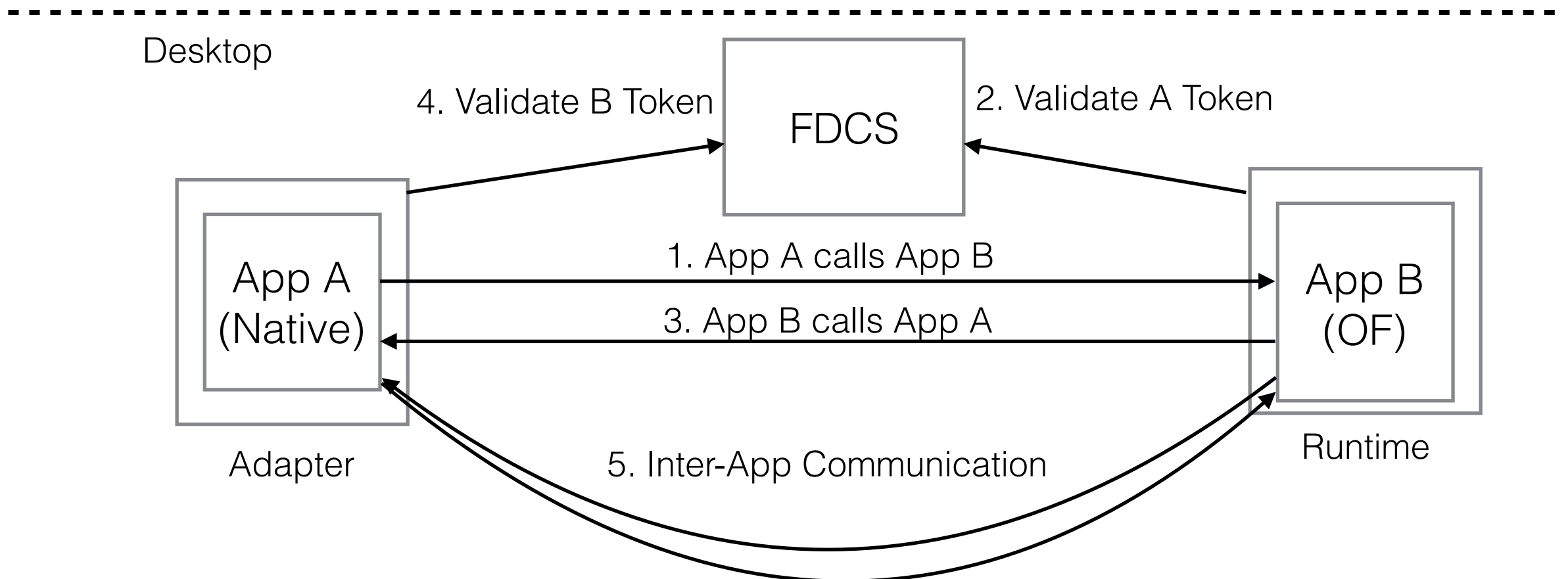
- App connects to connectivity "mesh"

Handshake

- App sends message via FDCS

- If App is secure (if token is present), session token is sent along as metadata

- Token is validated by FDCS

- If token is invalid, FDCS attempts revalidation against the App Directory

- If token is valid, message is flagged as "secure"

- Security in messages can be asymmetrical

- Rules can be set at a policy level to disallow insecure messages (analogous to SSL)

Initial Handshake

App Directory

Cloud
- -
Desktop

2. Validate Identity

App (Native)

1. Start

FDCS

1. Start

App (OF)

3. Grant Token

3. Grant Token

Adapter

Runtime

4. Connect to Mesh

Cross-App Communication

- -
Desktop

4. Validate B Token

FDCS

2. Validate A Token

App A (Native)

1. App A calls App B

App B (OF)

3. App B calls App A

Adapter

5. Inter-App Communication

Runtime

First API — Open

- Core workflow for cross-platform interoperability

- An app launches another app by name and applies a context

  - If the called app is already running, the new context is passed

  - The name of the app is registered in the App directory

```
fdc.open("ChartIQ",[{
   name:"IBM",
   type:"Quote",
   exchange:"NYS",
    id:{default:"ibm"}
}]);

fdc.open("Salesforce",[{
   name:"Nick Kolba",
   type:"Contact",
   id:{email:"nick@openfin.co"}
}]);
```

Next Steps

- Nominations of additional members and/or organizations

- Participants to present on interop use cases

- Identify other relevant/related standards that should be reviewed

- Feedback on technical proposal

- Setup Github organization for group

- Set next meeting date

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