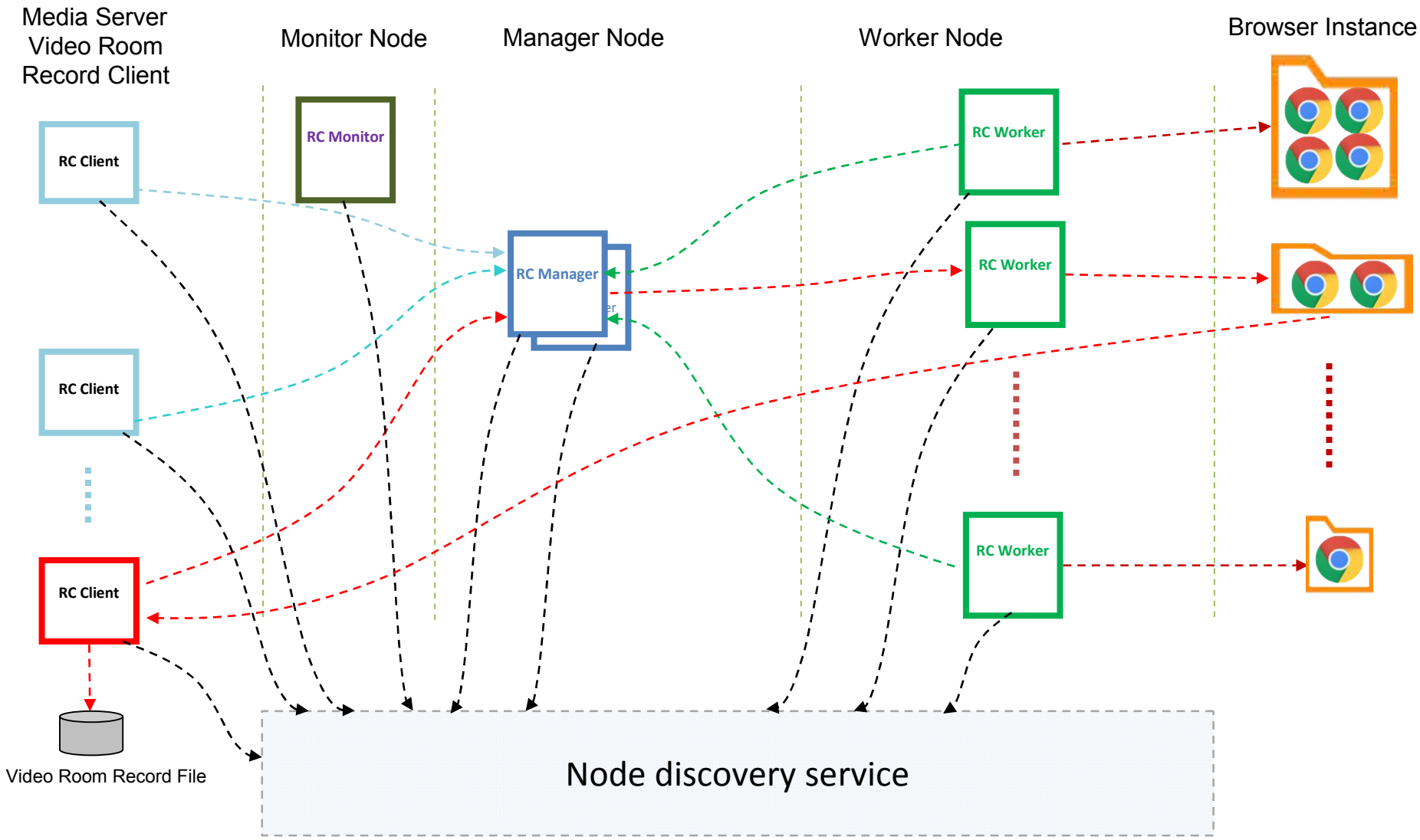
Video Room Recorder 軟體架構



Functionality of software components (1/3)

- RC Client (RC:Recoder)
  - Media Server request for conference recording resources
- RC Manager
  - Receive the conference recording request from the client and dispatch the request to available worker nodes that have free browser instances
  - Manage the availability of all worker nodes
  - Monitor the health status of the worker nodes via the Node Discovery Services
  - Compete to become the master RC Manager when the current master RC Manager disappears
  - Register itself to the Node Discovery Services

Functionality of software components (2/3)

- RC Worker
  - Serve the recording request from the master RC Manager
  - Manager the availability of a pool of browser instances
  - Discover the master RC Manager via the Node Discovery Services
  - Register itself to the master RC Manager
  - Monitor the status of the master RC Manager whenever it changes or disappears
- Node Discovery Services
  - Maintain the master RC Manager information if it exists
  - Maintain a list of live RC Manager nodes
  - Maintain a list of live RC Worker nodes
  - Maintain a list of resource stats of live RC Worker nodes

Functionality of software components (3/3)

- RC Monitor
  - Monitot the health status of Master manager node, the manager nodes, the worker nodes, and the worker resources stats
  - Provide the web interface for client to display the status of the RC nodes

Monitor Node Web UI

Master Manager Node

Manager Id	Websocket URL	HTTP URL
M-a4dd2518-c48a-4f1f-853e-39f001467a89	wss://10.140.0.10:9443/websocket	https://10.140.0.10:8443

Manager Node

Manager Id	Websocket URL	HTTP URL
M-721bd54f-624e-476e-a80f-bb386dddc9c0	wss://10.140.0.11:9443/websocket	https://10.140.0.11:8443
M-a4dd2518-c48a-4f1f-853e-39f001467a89	wss://10.140.0.10:9443/websocket	https://10.140.0.10:8443

Worker Node

Worker Id	Start Time	PID@HOST
W-cc07f29f-a1b4-4b78-9850-6ff9e4ad4fc6	2022-01-16T23:54:53.356+0000	1@instance-2
W-3adb71a2-5a72-4176-9581-7b3f251f7fa1	2022-01-16T23:55:05.993+0000	1@instance-3

Worker Stats

Worker Id	Available	Occupied
W-3adb71a2-5a72-4176-9581-7b3f251f7fa1	3	0
W-cc07f29f-a1b4-4b78-9850-6ff9e4ad4fc6	2	1

MediaServer Stats

MS Id	Available WebRTC	Occupied WebRTC	Available SIP	Occupied SIP	Available Video	Occupied Video	Available Recorder	Occupied Recorder
01	56	4	9	1	477	3	479	1

測試方法

1. 進入視訊會議室：啟動(最多4個)流覽器(chrome,safari,firefox,edge)執行URL：
https://rtc.tw/room.html?room=7

2. 啟動錄影：在其中一個流覽器按下”Start Record” => 待按鈕變成”Stop Record”
=> 表示已經開始錄影

3. 結束錄影：在其中一個流覽器按下”Stop Record” => 待按鈕變成”Play Record”
=> 表示已經結束錄影

4. 播放錄影：結束錄影後稍待3秒鐘(for轉檔完成),在其中一個流覽器按下”Play Record”
=> 彈出播放視窗 => 按鈕變回”Start Record” => 可再重複上述錄影動作.

[註1]：目前demo的播放錄影格式展現採用4分割畫面,未來畫面展現部份可以客製化.
[註2]：上述URL room=7 代表7號會議室, 可多組會議室(1~15)同時進行錄影(例如12號會議室使用room=12)
[註3]：目前demo的Recorder Server僅採用1部陽春VM(Linux),錄影capacity大約只有2~3個recorder,外部錄影相當耗CPU資源.