

Photon WebRPC

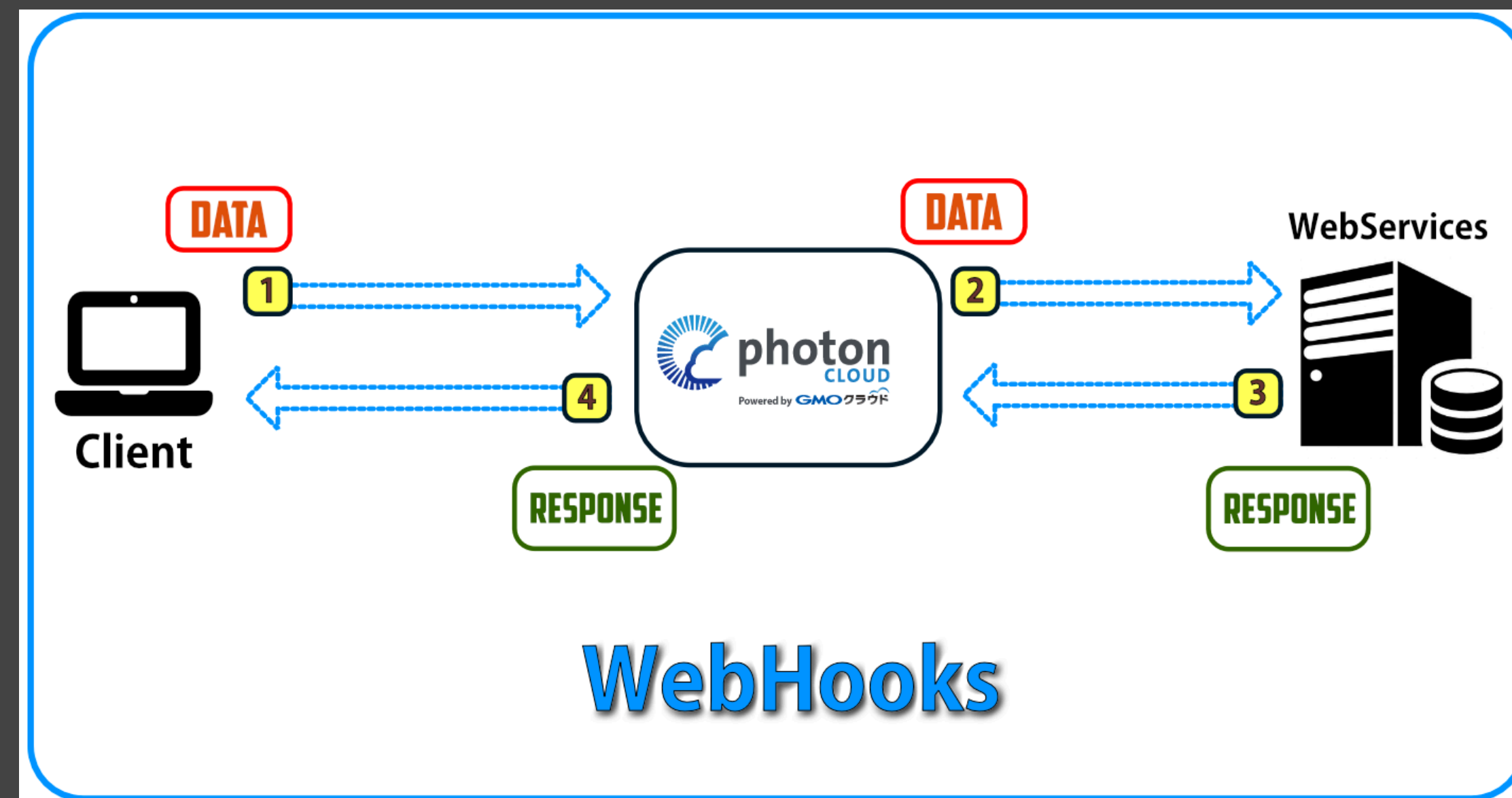
Arthur Pai

<https://github.com/ispan-umvr09/tank-server>

<https://github.com/ispan-umvr09/tanks>

Photon WebRPC

- WebRPC是一種靈活的方式，可以將外部服務與Photon Cloud結合起來。例如，通過WebRPC，Photon客戶端可以要求伺服器從外部網絡服務中獲取數據。



<https://doc.photonengine.com/zh-tw/pun/current/gameplay/web-extensions/webrpc>

<https://doc.photonengine.com/en-us/realtime/current/gameplay/web-extensions/webhooks>

Photon WebRPC

- 在客戶端，Photon WebRPC 必須連接到主伺服器或遊戲伺服器後才可使用
- 它需要一個URI路徑字符串（又稱WebRPC方法名稱）和一個包含要發送給網絡服務的數據的第二個參數（又稱WebRPC參數）
- 這兩個參數可以傳遞給 `PhotonNetwork.WebRPC` 方法

Photon Cloud 設定

- 開啟Photon Dashboard，點選”管理”按鈕
- <https://dashboard.photonengine.com/zh-TW/>

您的 Photon Cloud Apps

+ 建立新 應用程式

顯示 狀態 排列 順序 Display

全部的 應用程式 使用中 尖峰 CCU 數量 z → a As List

Tank2 20 CCU

應用程式 ID : 606a1614-...

Peak CCU 0

Traffic used 0%

分析 管理 變更CCU

Tanks 20 CCU

應用程式 ID : c9f02694-b...

Peak CCU 0

Traffic used 0%

分析 管理 變更CCU

Photon Cloud 設定

- 將 ngrok 產生的 url 填到 BaseUrl
- 以及填上其他 API Path

Webhooks

Photon Webhooks

Add callbacks for Photon events using HTTP calls to your host.
Read the Webhooks online docs for possible setups.
Configuration is optional.

CREATE A WEBHOOK

Add a Plugin to Game

Click to reveal, elsewhere to hide.

App ID: 1176c2e7-...

Select Type

Webhooks v1.2

The default configuration is left with blank URL and paths. Add your host URL and valid pathes to receive callbacks.
Use URL tags - {AppVersion}, {AppId}, {Region} or {Cloud} - with the base URL.
See [the Webhooks doc](#) for setup instructions.

Find the latest turnkey solutions for Photon Webhooks on Microsoft Azure and Heroku e.a. at <https://github.com/exitgames>.

BaseUrl	https://9024-59-127-47-160.ngrok.io	REQUIRED
HasErrorInfo	false	REMOVE
IsPersistent	true	REMOVE
AsyncJoin	true	REMOVE
CustomHttpHeaders	{ 'X-Origin': 'Photon' }	REMOVE
PathClose	api/game-close	REMOVE
PathCreate	api/game-create	REMOVE
PathEvent	api/events	REMOVE
PathGameProperties	api/game-properties	REMOVE
PathJoin	api/user-join	REMOVE
PathLeave	api/user-leave	REMOVE

SAVE the above configuration. Cancel and go back.

<https://doc.photonengine.com/en-US/realtime/current/gameplay/web-extensions/webhooks>

Authentication URL

https://9024-59-127-47-160.ngrok.io/api/auth/login

☒ Reject all clients if not available.

EDIT

or [Delete](#)

Add a new authentication provider for

STEAM

FACEBOOK

FACEBOOK GAMING

OCULUS

HTC VIVE

EPIC

Webhooks

Photon Webhooks

Add callbacks for Photon events using HTTP calls to your host.
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Keys

Values

BaseUrlhttps://9024-59-127-47-160.ngrok.io

HasErrorInfofalse

IsPersistenttrue

AsyncJointrue

CustomHttpHeaders{ 'X-Origin': 'Photon' }

EDIT

or [Delete](#)

WebRPC Example

Client Side TankShooting.cs

```
private void Fire ()
{
    // Set the fired flag so only Fire is only called once.
    m_Fired = true;

    // Create an instance of the shell and store a reference to it's rigidbody.
    Rigidbody shellInstance =
        Instantiate (m_Shell, m_FireTransform.position, m_FireTransform.rotation) as Rigidbody;

    photonView.RPC("FireOther", RpcTarget.Others, m_FireTransform.position);

    // Set the shell's velocity to the launch force in the fire position's forward direction.
    shellInstance.velocity = m_CurrentLaunchForce * m_FireTransform.forward;

    // Change the clip to the firing clip and play it.
    m_ShootingAudio.clip = m_FireClip;
    m_ShootingAudio.Play ();

    // Reset the launch force. This is a precaution in case of missing button events.
    m_CurrentLaunchForce = m_MinLaunchForce;

    m_FireTimes++;
    var parameters = new Dictionary<string, object>
    {
        { "score", m_FireTimes }
    };
    PhotonNetwork.WebRpc("api/scores", parameters);
}
```


WebRPC Example

Client Side TankShooting.cs

```
public override void OnWebRpcResponse(OperationResponse operationResponse)
{
    if (operationResponse.ReturnCode != 0) {
        Debug.Log("WebRPC 操作失敗. Response: " + operationResponse.ToStringFull());
        return;
    }

    WebRpcResponse webRpcResponse = new WebRpcResponse (operationResponse);
    if (webRpcResponse.ResultCode != 0)
    {
        Debug.Log("WebRPC '" + webRpcResponse.Name + "發生問題. Error: " +
webRpcResponse.ResultCode + " Message: " + webRpcResponse.Message);
        return;
    }

    // 列出回傳參數值，像是 排名、訊息等
    var parameters = webRpcResponse.Parameters;

    var message = parameters
        .Aggregate("Leaderboard: \n", (current, pair) =>
            current + $"User({pair.Key}): Score: {pair.Value}\n");
    Debug.Log(message);
}
```


WebRPC Example

Server Side

```
namespace TankServer.Requests;

public class ScoreRequest
{
    public string? AppId { get; set; }
    public string? AppVersion { get; set; }
    public string? Region { get; set; }
    public string? UserId { get; set; }
    public int score { get; set; }
}
```

WebRPC Example

Server Side

```
namespace TankServer.Controllers;

[Route("api/[controller]")]
[ApiController]
public class ScoresController : ControllerBase
{
    private readonly TankContext _context;

    public ScoresController(TankContext context)
    {
        _context = context;
    }

    [HttpPost]
    public async Task<PhotonResult> post([FromBody] ScoreRequest request)
    {
        var userId = int.Parse(request.UserId!);
        var player = await _context.Players
            .Where(p => p.Id == userId)
            .FirstOrDefaultAsync();

        if (player == null)
        {
            return new PhotonResult
            {
                ResultCode = 1,
                Message = "Not Login"
            };
        }

        // 儲存到資料庫
        player.Score = request.score;
        await _context.SaveChangesAsync();

        // Leaderboard
        var players = await _context.Players
            .Take(10)
            .OrderByDescending(p => p.Score)
            .ToListAsync();

        var leaderboard = players
            .ToDictionary<Player, string, object>(p => p.Id.ToString(), p => p.Score);

        return new PhotonResult
        {
            ResultCode = 0,
            Data = leaderboard
        };
    }
}
```