

#### **EventGameStartedPacket**

+ PACKET ID : int=14 {read only}

#### EventPlayerChangeTeamPacket

+ PACKET\_ID : int=11 {read only}

+ getTargetPlayerId(byte[]): String

+ getNewTeamId(byte[] rawPayI): String

- createContent(String , String ): Byte[]

## EventPlayerNameChangePacket

+ PACKET\_ID : int=3 {read only}

+ getTargetPlayerId(byte[]): String

+ getPlayerName(byte[]): String

createContent(String , String ): Byte[]

#### EventTeamNameChangePacket

+ PACKET ID : int=7 {read only}

+ getTeamId(byte[]): String

+ getNewTeamName(byte[]): String

- createContent(String , String ): Byte[]

# RequestLobbyReadyChangePacket

+ PACKET\_ID : int=4 {read only}

<u>+ getNewState(byte[]): boolean</u> - createContent(boolean): byte[]

## RequestTeamNameChangePacket

+ PACKET ID : int=6 {read only}

+ getTeamId(byte[]): String

+ getNewTeamName(byte[]): String

- createContent(String , String ): Byte[]

#### EventLobbyReadyChangePacket

+ PACKET ID : int=5 {read only}

createContent(String , boolean ) : byte[ ]

<u>+ getTargetPlayerId(byte[] ) : String</u> + getNewState(byte[]): boolean

#### EventPlayerLeftPacket

+ PACKET\_ID : int=9 {read only}

+ getPlayerId(byte[]) String

#### **EventTeamCreatedPacket**

+ PACKET ID : int=12 {read only}

+ getNewTeamId(byte[]): String

+ getNewTeamName(byte[]): String

- createContent(String, String): Byte[]

#### packets

# **PlayerIdPacket**

+ PACKET ID : int=0 {read only}

+ getPlayerId(byte[]): String

# RequestPlayerChangeTeamPacket

+ PACKET ID : int=10 {read only}

+ getNewTeamId(byte[]): String

## EventLobbySyncPacket

+ PACKET\_ID : int=1 {read only}

- createContent(String, String) : byte []

+ getRoomName(byte[]) : String

+ getGameModeId(byte[]): String

#### EventPalyerJoindPacket

+ PACKET\_ID : int=8 {read only}

+ getPlayerId(byte[]) String

+ getPlayerName(byte[]): String

createContent(String , String ): Byte[]

#### **EventTeamDeletedPacket**

+ PACKET\_ID : int=13 {read only}

+ getTeamId(byte[]): String

## Packet

MAX\_ID\_SIZE: int=255 {read only}

packetContent: byte[] packetID: byte

+ getPayloadContent(byte[]): byte[]

setPacketContent(byte[]): void

verifyID(int): byte

getBuiltPacket(): byte

## RequestPlayerNameChangePacket

+ PACKET ID : int=2 {read only}

+ getNewPlayerName(byte[]): String

# startScan(): void

<<interface>>

NetworkManager

- stopScan(): void
- ~ connectToHost(Connection): void
- startHostBeacon(): void

- stopHostBeacon(): void
- sendBytePayload(Connection, byte[]): void
- ~ broadcastBytePayload(byte[]): void
- processPayloadQueue(): void
- isScanning(): boolean
- isHostBeaconActive(): boolean
- ~ isHost(): boolean
- isMe(String): boolean
- ~ stopAllConnections(): void
- ~ cleanStop(): void
- ~ getConnectionsCount(): int
- ~ getConnectionHost(): Connection
- ~ getConnection(String): Connection
- ~ getConnections(): Connection[]
- ~ disconnect(String): void ~ disconnect(Connection): void
- ~ getPlayerName(): String
- ~ setPlayerName(): void
- ~ getPlayerId(): String
- ~ setPlayerId(): void
- ~ isQueuingIncomingPayloads(): boolean
- ~ setQueueIncomingPayloads(boolean): void

### NetworkModule

PacketHandler

networkManager: NetworkManager

- hostEventCallback: HostEventCallback

- MAX NMB CONNECTIONS: int = 99 {readOnly}
- MAX PAYLOAD QUEUE SIZE: int= 9999 {readOnly}
- MAX PLAYERNAME SIZE: int = 12 {readOnly}

## ClientRequestsCallback

- + onPlayerNameChangeRequest(String, String): void
- + onLobbyReadyChangeRequest(String, boolean): void
- + onTeamNameChangeRequest(String, String): void
- + onPlayerTeamChangeRequest(String, String): void

HostEventCallback

- + onPlayerNameChangeEvent(String, String): void
- + onLobbyReadyChangeEvent(String, boolean): void
- + onTeamNameChangeEvent(String, String): void
- + onPlayerJoinedEvent(String, String): void
- + onPlayerLeftEvent(String): void
- + onPlayerChangeTeamEvent(String, String): void
- + onTeamCreatedEvent(String, String): void
- + onTeamDeletedEvent(String): void + onGameStartedEvent(): void
- + onLobbySyncEvent(String, String): void

#### - clientRequestsCallback - ClientRequestsCallback - STRATEGY: Strategy = Strategy.P2P STAR {readOnly} + handleReceivedPayload(String, byte[]): void - networkModule: NetworkModule + sendPlayerId(Connection, String): void connectionsClient: ConnectionsClient + sendRequestPlayerNameChange(String): void playerName: String + sendRequestReadyStatus(boolean): void playerId: String + sendRequestTeamNameChange(String, String): void isHost: boolean + sendRequestTeamChange(String): void isScanning: boolean + sendRequestBuyItem(String): void isHostBeaconActive: boolean + sendRequestAnswerQuestion(String): void isQueuingIncomingPayloads: boolean + sendLobbySyncPacket(): void isHost: boolean + broadcastPlayerNameChange(String, String): void networkCallback: NetworkCallback + broadcastLobbyReadyChange(String, boolean): void connection Life cycle Callback: Connection Life cycle Callback+ broadcastTeamNameChange(String, String): void endpointDiscoveryCallback: EndpointsDiscoveryCallback + broadcastPlayerJoined(String, String): void payloadCallback: PayloadCallback + broadcastPlayerLeft(String): void connectionLinkedHashMap: LinkedHashMap<String, Connection> + broadcastPlayerChangeTeam(String, String): void payloadQueueList: List< Pair<String, byte[]>> + broadcastTeamCreated(String, String): void context: Context + broadcastTeamDeleted(String): void startScan(): void + broadcastGameStarted(): void stopScan(): void + connectToHost(Connection): void - startHostBeacon(): void + stopHostBeacon(): void + sendBytePayload(Connection, byte[]): void broadcastBytePayload(byte[]): void + processPayloadQueue(): void - isScanning(): boolean isHostBeaconActive(): boolean + isHost(): boolean ⊦ isMe(String): boolean stopAllConnections(): void cleanStop(): void + getConnectionsCount(): int getConnectionHost(): Connection getConnection(String): Connection + getConnections(): Connection[] disconnect(String): void + disconnect(Connection): void + getPlayerName(): String + setPlayerName(): void + getPlayerId(): String + setPlaverId(): void - isQueuingIncomingPayloads(): boolean + setQueueIncomingPayloads(boolean): void NetworkCallback

- onBytePayloadReceived(String, byte[]): void
- onHostFound(String, Connection): void

onClientFound(String, Connection): void

- onHostLost(String): void
- onConnectionEstablished(String, Connection): void
- onConnectionLost(String): void onConnectionChanged(Connection, ConnectionState, Con

callbacks