**1. BECKN Protocol Schemas (Simplified Example)**

**Context Object (required in every request/response):**

{

"domain": "nic2004:60232",

"country": "PKR",

"city": "std:080",

"core\_version": "0.9.3",

"transaction\_id": "1234567890",

"message\_id": "abcdef123456",

"timestamp": "2025-08-06T12:00:00Z",

"bap\_id": "buyer-app.qnnex.com",

"bpp\_id": "seller-app.qnnex.com"

}

**Message Object (example for /search):**

{

"intent": {

"item": {

"descriptor": { "name": "apples" }

},

"fulfillment": {

"end": { "location": { "gps": "12.9716,77.5946" } }

}

}

}

**2. Sample Payloads**

**A. /search (Buyer → BAP)**

{

"context": { /\* see above \*/ },

"message": {

"intent": {

"item": { "descriptor": { "name": "apples" } }

}

}

}

**B. /on\_search (BBP → Gateway/BAP)**

{

"context": { /\* see above, with bpp\_id set \*/ },

"message": {

"catalog": [

{

"id": "item-1",

"descriptor": { "name": "apples" },

"price": { "currency": "INR", "value": "100" },

"available": true

}

]

}

}

**C. /order (Buyer → BAP)**

{

"context": { /\* see above \*/ },

"message": {

"order": {

"item\_id": "item-1",

"quantity": 2,

"fulfillment": { "end": { "location": { "gps": "12.9716,77.5946" } } }

}

}

}

**D. /on\_order (BBP → Gateway/BAP)**

{

"context": { /\* see above, with bpp\_id set \*/ },

"message": {

"order": {

"id": "order-123",

"status": "accepted",

"items": [{ "id": "item-1", "quantity": 2 }]

}

}

}

**3. Endpoint Documentation (QNNEX Prototype)**

**Buyer App Platform (BAP) Endpoints**

|  |  |  |
| --- | --- | --- |
| **Endpoint** | **Method** | **Description** |
| /search | POST | Search for items |
| /select | POST | Select item(s) |
| /order | POST | Place an order |
| /status | POST | Get order status |
| /confirm | POST | Confirm an order |
| /cancel | POST | Cancel an order |
| /on\_search | POST | Callback for search result |
| /on\_select | POST | Callback for select |
| /on\_order | POST | Callback for order |
| /on\_status | POST | Callback for status |

**Business Platform Provider (BBP) Endpoints**

|  |  |  |
| --- | --- | --- |
| **Endpoint** | **Method** | **Description** |
| /on\_search | POST | Respond to search |
| /on\_select | POST | Respond to select |
| /on\_order | POST | Respond to order |
| /on\_status | POST | Respond to status |
| /on\_confirm | POST | Respond to confirm |
| /on\_cancel | POST | Respond to cancel |

**Gateway Endpoints**

|  |  |  |
| --- | --- | --- |
| **Endpoint** | **Method** | **Description** |
| /search | POST | Route search to BBP |
| /select | POST | Route select to BBP |
| /order | POST | Route order to BBP |
| /status | POST | Route status to BBP |
| /confirm | POST | Route confirm to BBP |
| /cancel | POST | Route cancel to BBP |
| /on\_search | POST | Route on\_search to BAP |
| /on\_select | POST | Route on\_select to BAP |
| /on\_order | POST | Route on\_order to BAP |

**4. Integration Checklist for Teams**

* Use the **context** and **message** structure in every request.
* Always POST JSON with Content-Type: application/json.
* Use unique transaction\_id and message\_id for each transaction.
* Handle all callbacks (/on\_\*) as asynchronous responses.
* Validate payloads against the above schemas.
* Log all requests and responses for debugging.

**5. References**

* [BECKN Protocol Spec](vscode-file://vscode-app/c:/Users/DELL/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-browser/workbench/workbench.html)
* QNNEX Prototype README