## Entity Description

**Region** - Geographical (Financial) Grouping eg. EMEA / APAC / AMERS

**Venue** - Exchange / Market Data eg. CME, NYSE, LSE

**Venue Profile/Capability** - Configuration for a particular venue. This can include environments, multi-cast policy, recovery policy etc.

**Venue Migration Template -** Template/Blueprint for how to connect to a particular Venue. It will consist of the difference connections required for a venue eg..a connection for MarketData, Recovery, Reference data etc.
Note: There can only be 1 active Venue Migration Template. The model allows for archiving and identifying historical VenueMigrationTemplates

**Connection Pattern** - Identifies a specific flow eg: Market Data, Recovery etc. Each Connection pattern consists of Network specific patterns (Layer 1->4) and Application based patterns (Layer 5-> 7). The ConnectionPattern acts as a bridge between the various Layer 4 and Layer 7 patterns. Each VenueMigrationTemplate will consist of several ConnectionPatterns.

**Layer 1-4 Pattern**- Composite Network-Specific patterns that describes transport capabilities.-*Expand on this*

**Layer 5-7 Pattern**- Composite Application-Specific patterns that describes protocols, dataformats etc capabilities.-*Expand on this*

**Network Protocol** - Different procotols (L1-L4) transport. TCP/UDP, Dual, IP, ports, etc

**Network Profile** - Specific configuration, congestion handling???

**Security Profile** - Specific/Standardised security, TLS, Firewall policy, certificates etc.
*Is there a different/combination security profile for the AppLayer ?*

**Credential Profile** - Application Level. Encrytion keys, secrets, rotation policy etc..

**Connection Instance** - Runtime instance of a connection (to a venue). connection pattern eg. market feed connection (UDP), recovery connection (TCP) etc.
Populated with actual values, state (status), observability (hooks).

**Integration (AMDB|IMDB)** -*??*

**Oliver: Example data from Feedcorrect:**

**Feed/Channel**
- feedId [1201]
- feedName [ASX Trade open interface]
- channelId [3702]
- channelName [ASX Trade Omnet API]
- protocol [TCP, TCP-SSL, UDP etc]
- chelnterface [A, B]
- exchangeIPv4 [172.30.67.8/29]
- exchangePort [5261]
- commsDesignators [circuit/x-connect details e.g SNA-REUT-V1]
- sourceEnvironment [Prod/Dev/etc]
- lsegStatus [Live/decomm ]
- ranking [Premium, A, B, C ] unclear if this is whole feed or channel
- recoveryDetails [Gap Recovery for Order message trigger by modify the OMC.ini file with wanted message and sequences, the file will be triggered once a minute.]
- drType [Hot, cold DR]
- drDescription [Text description of DR capabilities/reqs]
- description [Australian Stock Exchange - File Maintenance, KRX - KOSDAQ150 Index Futures, ICE EU (Chicago) + DTIG - Oil, Non-Oil, Agricultural Derivatives]

**Venue**
- venueId [928]
- venueName [ASX - Australian securities exchange]
- parentCompany [Australian Securities Exchange Limited]

**Processor** - this data matters, but should we model it here?
- processorId [53]
- processorName [ASX]
- processorType [CHE]
-
- processorStatus [Production]
- headend [SY4P-DDNCCHE02A, SY3P-DDNCCHE02A, SY3P-DDNCCHE02B, SY4P-DDNCCHE02B]

## Entity Attributes / Examples (wip)

*Note: attributes in **Blue** could/should be a seperate entity*

| **Region** |
|---|
| region_id |
| region_name |
| region_code |
| *timezone* |
| ?? |

| Region example 01 |
|---|
| 001 |
| *Americas (North, Central, South)* |
| AMER |
| *EST\|PST \| ...* |
| ?? |

| Region example 02 |
|---|
| 002 |
| *Eurpore Middle-East Africa* |
| EMEA |
| *CET\|GMT\|BST\|GMT+? \| ...* |
| ?? |

| **Venue** |
|---|
| venue_id |
| venue_name |
| venue_code |
| venue_type |
| region_id_FK |
| ?? |

| Venue example |
|---|
| 0001 |
| *Chicago Merchantile Exchange* |
| CME |
| *Exhchange \| LiqProv \| ...* |
| *001 (CME)* |
| ?? |

| **VenueProfile/Cap** |
|---|
| venue_profile_id |
| venue_profile_desc |
| environment_type |
| recovery_type |
| multicast_policy |
| is_active |
| date_effective_from |
| date_effective_to |
| venue_id_FK |
| ?? |

| VenueProfile/Cap example |
|---|
| *100001* |
| *cme_marketdata* |
| *Prod \| UAT \| Dev \| ....* |
| *TCP* |
| *Multi \| Uni \| Dual ????* |
| *true* |
| *2025-01-01 00:00:00* |
| *null* |
| *0001 (CME)* |
| *??* |

| **ConnectionPattern** |
|---|
| connection_pat_id |
| connection_pat_name |
| type |
| venue_profile_id_FK |

| ConnectionPattern Example |
|---|
| *cp-cme-prod* |
| *market data feed* |
| *MarketData \| Recovery \| Reference \| ....* |
| *100001 (cme_marketdata)* |

| **Network Profile** |
|---|
| network_profile_id |
| protocol |
| multicast_policy |
| ?? |
| ?? |

| **Network Profile Example** |
|---|
| 2000 |
| TCP\|UDP |
| *Multi \| Uni \| Dual ????* |
| *??* |
| *??* |