

C.

Version 2.X BNF Message Descriptions

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C.2 BNF DESCRIPTIONS OF HL7 VERSION 2.X ABSTRACT MESSAGES

C.3 MESSAGES

/*-- MessageStructures --*/

```
MessageStructure :=
|   ADT_A01    /* ADT/ACK - Cancel discharge/end visit */
|   ADT_A02    /* ADT/ACK - Transfer a patient */
|   ADT_A03    /* ADT/ACK - Discharge/end visit */
|   ADT_A05    /* ADT/ACK - Pending admit */
|   ADT_A06    /* ADT/ACK - Change an inpatient to an outpatient */
|   ADT_A09    /* ADT/ACK - Patient departing - tracking */
|   ADT_A12    /* ADT/ACK - Cancel transfer */
|   ADT_A15    /* ADT/ACK - Pending transfer */
|   ADT_A16    /* ADT/ACK - Pending discharge */
|   ADT_A17    /* ADT/ACK - Swap patients */
```

Appendix C: BNF Message Descriptions

```
| ADT_A20 /* ADT/ACK - Bed status update */
| ADT_A21 /* ADT/ACK - Cancel pending admit */
| ADT_A24 /* ADT/ACK - Link patient information */
| ADT_A37 /* ADT/ACK - Unlink patient information */
| ADT_A38 /* ADT/ACK - Cancel pre-admit */
| ADT_A39 /* ADT/ACK - Merge patient - patient identifier list */
| ADT_A43 /* ADT/ACK - Move patient information - patient identifier
list */
| ADT_A44 /* ADT/ACK - Change patient identifier list */
| ADT_A45 /* ADT/ACK - Move visit information - visit number */
| ADT_A50 /* ADT/ACK - Change visit number */
| ADT_A52 /* ADT/ACK - Cancel leave of absence for a patient */
| ADT_A54 /* ADT/ACK - Cancel change attending doctor */
| ADT_A60 /* ADT/ACK - Update allergy information */
| ADT_A61 /* ADT/ACK - Change consulting doctor */
| BAR_P01 /* BAR/ACK - Add patient accounts */
| BAR_P02 /* BAR/ACK - Purge patient accounts */
| BAR_P05 /* BAR/ACK - Update account */
| BAR_P06 /* BAR/ACK - End account */
| BAR_P10 /* BAR/ACK -Transmit Ambulatory Payment
Classification(APC) */
| BAR_P12 /* BAR/ACK - Update Diagnosis/Procedure */
| BPS_O29 /* BPS - Blood product dispense status */
| BRP_O30 /* BRP - Blood product dispense status acknowledgment */
| BRT_O32 /* BRT - Blood product transfusion/disposition
acknowledgment */
| BTS_O31 /* BTS - Blood product transfusion/disposition */
| CCF_I22 /* Collaborative Care Fetch / Collaborative Care
Information */
| CCM_I21 /* Collaborative Care Message */
| CCQ_I19 /* Collaborative Care Query/ Collaborative Care Query Update
*/
| CCR_I16 /* Modify Collaborative Care Referral */
| CCU_I20 /* Asynchronous Collaborative Care Update */
| CRM_C01 /* CRM - Register a patient on a clinical trial */
| CSU_C09 /* CSU - Automated time intervals for reporting, like
monthly */
| DEL_O46 /* Donor Eligibility Message */
| DEO_O45 /* Donor Eligibility Observations Message */
| DER_O44 /* Donor Registration - Minimal Message */
| DFT_P03 /* DFT/ACK - Post detail financial transaction */
| DFT_P11 /* DFT/ACK - Post Detail Financial Transactions - New */
| DPR_O48 /* Donation Procedure Message */
| DRC_O47 /* Donor Request to Collect Message */
| EAC_U07 /* EAC/ACK - Automated equipment command */
| EAN_U09 /* EAN/ACK - Automated equipment notification */
| EAR_U08 /* EAR/ACK - Automated equipment response */
| EHC_E01 /* Submit HealthCare Services Invoice */
| EHC_E02 /* Cancel HealthCare Services Invoice */
| EHC_E04 /* Re-Assess HealthCare Services Invoice Request */
| EHC_E10 /* Edit/Adjudication Results */
| EHC_E12 /* Request Additional Information */
| EHC_E13 /* Additional Information Response */
| EHC_E15 /* Payment/Remittance Advice */
| EHC_E20 /* Submit Authorization Request */
| EHC_E21 /* Cancel Authorization Request */
| EHC_E24 /* Authorization Response */
| ESR_U02 /* ESR/ACK - Automated equipment status request */
| ESU_U01 /* ESU/ACK - Automated equipment status update */
| INR_U06 /* INR/ACK - Automated equipment inventory request */
```

```

| INU_U05 /* INU/ACK - Automated equipment inventory update */
| LSU_U12 /* LSU/ACK - Automated equipment log/service update */
| MDM_T01 /* MDM/ACK - Original document notification */
| MDM_T02 /* MDM/ACK - Document status change notification and
content */
| MFK_M01 /* MFK/MFK - Test /observation batteries master file */
| MFN_M02 /* MFN/MFK - Master file - staff practitioner */
| MFN_M04 /* MFN/MFK - Master files charge description */
| MFN_M05 /* MFN/MFK - Patient location master file */
| MFN_M06 /* MFN/MFK - Clinical study with phases and schedules
master file */
| MFN_M07 /* MFN/MFK - Clinical study without phases but with
schedules master file */
| MFN_M08 /* MFN/MFK - Test/observation (numeric) master file */
| MFN_M09 /* MFN/MFK - Test/observation (categorical) master file */
| MFN_M11 /* MFN/MFK - Test/calculated observations master file */
| MFN_M12 /* MFN/MFK - Master file notification message */
| MFN_M13 /* MFN/MFK - Master file notification - general */
| MFN_M15 /* MFN/MFK - Inventory item master file notification */
| MFN_M16 /* MFN/MFK - Master File Notification Inventory Item
Enhanced */
| MFN_M17 /* DRG Master File Message */
| MFN_Znn /* MFN/MFK - Master file notification - site defined */
| NMD_N02 /* NMD/ACK - Application management data message
(unsolicited) */
| OMB_O27 /* OMB - Blood product order */
| OMD_O03 /* OMD - Diet order */
| OMG_O19 /* OMG - General clinical order */
| OMI_O23 /* OMI - Imaging order */
| OML_O21 /* OML - Laboratory order */
| OML_O33 /* OML - Laboratory order for multiple orders related to a
single specimen */
| OML_O35 /* OML - Laboratory order for multiple orders related to a
single container of a sp */
| OML_O39 /* Specimen shipment centric laboratory order */
| OMN_O07 /* OMN - Non-stock requisition order */
| OMP_O09 /* OMP - Pharmacy/treatment order */
| OMQ_O42 /* DBU - Update Donor Record Message */
| OMS_O05 /* OMS - Stock requisition order */
| OPL_O37 /* OPL - Population/Location-Based Laboratory Order Message
*/
| OPR_O38 /* OPR - Population/Location-Based Laboratory Order
Acknowledgment Message */
| OPU_R25 /* OPU - Unsolicited Population/Location-Based Laboratory
Observation Message */
| ORA_R33 /* ORA - Observation Report Acknowledgement */
| ORA_R41 /* Observation Report Alert Acknowledgement */
| ORB_O28 /* ORB - Blood product order acknowledgment */
| ORD_O04 /* ORD - Diet order acknowledgment */
| ORG_O20 /* ORG/ORL - General clinical order response */
| ORI_O24 /* ORI - Imaging order response message to any OMI */
| ORL_O22 /* ORL - General laboratory order response message to any
OML */
| ORL_O34 /* ORL - Laboratory order response message to a multiple
order related to single sp */
| ORL_O36 /* ORL - Laboratory order response message to a single
container of a specimen OML */
| ORL_O40 /* Specimen Shipment Centric Laboratory Order
Acknowledgment Message */
| ORN_O08 /* ORN - Non-stock requisition acknowledgment */

```

Appendix C: BNF Message Descriptions

```
| ORP_O10      /* ORP - Pharmacy/treatment order acknowledgment */
| ORS_O06      /* ORS - Stock requisition acknowledgment */
| ORU_R01      /* ORU - Unsolicited Report Alarm */
| ORU_R30      /* ORU - Unsolicited Pre-Ordered Point-Of-Care Observation
*/
| ORX_O43      /* General Order Message with Document Payload
Acknowledgement Message */
| OSM_R26      /* OSM - Unsolicited Specimen Shipment Manifest Message */
| OSU_O41      /* DBC - Create Donor Record Message */
| OUL_R22      /* OUL - Unsolicited Specimen Oriented Observation Message
*/
| OUL_R23      /* OUL - Unsolicited Specimen Container Oriented
Observation Message */
| OUL_R24      /* OUL - Unsolicited Order Oriented Observation Message */
| PEX_P07      /* PEX - Unsolicited update individual product experience
report */
| PGL_PC6      /* PGL - PC/ goal update */
| PMU_B01      /* PMU/ACK - Update personnel record */
| PMU_B03      /* PMU/ACK - Delete personnel re cord */
| PMU_B04      /* PMU/ACK - Terminate practicing person */
| PMU_B07      /* PMU/ACK - Grant Certificate/Permission */
| PMU_B08      /* PMU/ACK - Revoke Certificate/Permission */
| PPG_PCG      /* PPG - PC/ pathway (goal-oriented) delete */
| PPP_PCB      /* PPP - PC/ pathway (problem-oriented) delete */
| PPR_PC1      /* PPR - PC/ problem add */
| QBP_E03      /* HealthCare Services Invoice Status */
| QBP_E22      /* Authorization Request Status */
| QBP_O33      /* QBP - Get Donor Record Candidates */
| QBP_O34      /* QBP - Get Donor Record */
| QBP_Q11      /* QBP Query Dispense history */
| QBP_Q13      /* */
| QBP_Q15      /* QBP - Query by parameter requesting an RDY display
response */
| QBP_Q21      /* QBP - Find candidates */
| QBP_Z73      /* */
| QCN_J01      /* QSX/ACK - Cancel subscription/acknowledge message */
| QSB_Q16      /* QSB - Create subscription */
| QVR_Q17      /* QVR - Query for previous events */
| RAS_O17      /* RAS - Pharmacy/treatment administration */
| RDE_O11      /* RDE - Pharmacy/treatment encoded order */
| RDR_RDR      /* */
| RDS_O13      /* RDS - Pharmacy/treatment dispense */
| RDY_K15      /* */
| RDY_Z80      /* */
| REF_I12      /* REF/RRI - Patient referral */
| RGV_O15      /* RGV - Pharmacy/treatment give */
| RQA_I08      /* RQA/RPA - Request for modification to an authorization
*/
| RQI_I01      /* RQI/RPI - Request for insurance information */
| RQP_I04      /* RQD/RPI - Request for patient demographic data */
| RRA_O18      /* RRA - Pharmacy/treatment administration acknowledgment
*/
| RRD_O14      /* RRD - Pharmacy/treatment dispense acknowledgment */
| RRE_O12      /* RRE - Pharmacy/Treatment Refill Authorization
Acknowledgement */
| RRG_O16      /* RRG - Pharmacy/treatment give acknowledgment */
| RSP_K11      /* RSP - Segment pattern response in response to QBP^Q11 */
| RSP_K21      /* RSP - Get person demographics response */
| RSP_K22      /* RSP - Find candidates response */
| RSP_K23      /* RSP - Get corresponding identifiers response */
```

```

| RSP_K25 /* RSP - Personnel Information by Segment Response */
| RSP_K31 /* RSP -Dispense History Response */
| RSP_K32 /* Find Candidates including Visit Information Response */
| RSP_O33 /* Get Donor Record Candidates Response Message */
| RSP_O34 /* Segment Pattern Response Message */
| RSP_Z82 /* */
| RSP_Z84 /* */
| RSP_Z86 /* */
| RSP_Z88 /* */
| RSP_Z90 /* */
| RTB_K13 /* RTB - Tabular response in response to QBP^Q13 */
| RTB_Z74 /* */
| SDR_S31 /* SDN/ACK - Notification of anti-microbial device data */
| SDR_S32 /* SCN/ACK - Notification of anti-microbial device cycle
data */
| SIU_S12 /* SIU/ACK - Notification of appointment discontinuation */
| SLR_S28 /* SLN/ACK - Notification of sterilization lot */
| SRM_S01 /* SRM/SRR - Request modification of service/resource on
appointment */
| SSR_U04 /* SSR/ACK - specimen status request */
| SSU_U03 /* SSU/ACK - Specimen status update */
| STC_S33 /* STC/ACK - Notification of sterilization configuration */
| TCU_U10 /* TCR/ACK - Automated equipment test code settings request
*/
| UDM_Q05 /* UDM/ACK - Unsolicited display update message */
| VXU_V04 /* VXU - Unsolicited vaccination record update */

```

```

/* ADT/ACK - Cancel discharge/end visit */
ACK := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [{ ERR ST }] EOM;

```

```

/* ADT/ACK - Transfer a patient */
ADT_A01 := SOM MSH ST MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [{ SFT ST
}] [{ SFT ST }] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] EVN ST EVN ST EVN
ST EVN ST PID ST PID ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [ PD1 ST ] [ PD1
ST ] [{ ARV ST }] [{ ARV ST }] [{ ARV ST }] [{ ARV ST }] [{ ROL ST }] [{ ROL
ST }] [{ ROL ST }] [{ ROL ST }] [{ NK1 ST }] [{ NK1 ST }] [{ NK1 ST }] [{ NK1
ST }] PV1 ST PV1 ST PV1 ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ PV2 ST ] [ PV2 ST ]
[{ ARV ST }] [{ ARV ST }] [{ ARV ST }] [{ ARV ST }] [{ ROL ST }] [{ ROL ST }]
[{ ROL ST }] [{ ROL ST }] [{ DB1 ST }] [{ DB1 ST }] [{ DB1 ST }] [{ DB1 ST }]
[{ OBX ST }] [{ OBX ST }] [{ OBX ST }] [{ OBX ST }] [{ AL1 ST }] [{ AL1 ST }]
[{ AL1 ST }] [{ AL1 ST }] [{ DG1 ST }] [{ DG1 ST }] [{ DG1 ST }] [{ DG1 ST }]
[ DRG ST ] [ DRG ST ] [ DRG ST ] [ DRG ST ] [ ST [ ST [ ST [ ST PR1 ST PR1
ST PR1 ST PR1 ST [{ ROL ST }] [{ ROL ST }] [{ ROL ST }] [{ ROL ST }] ST ST
ST ST ST [{ GT1 ST }] [{ GT1 ST }] [{ GT1 ST }] [{ GT1 ST }] [{ ST [ ST
[ ST [ ST IN1 ST IN1 ST IN1 ST IN1 ST [ IN2 ST ] [ IN2 ST ] [ IN2 ST ] [ IN2
ST ] [{ IN3 ST }] [{ IN3 ST }] [{ IN3 ST }] [{ IN3 ST }] [{ ROL ST }] [{ ROL
ST }] [{ ROL ST }] [{ ROL ST }] [{ AUT ST }] [{ AUT ST }] [{ AUT ST }] [{ AUT
ST }] [{ RF1 ST }] [{ RF1 ST }] [{ RF1 ST }] [{ RF1 ST }] ST ST ST ST ST
ST [ ACC ST ] [ ACC ST ] [ ACC ST ] [ ACC ST ] [ UB1 ST ] [ UB1 ST ] [ UB1 ST
] [ UB1 ST ] [ UB2 ST ] [ UB2 ST ] [ UB2 ST ] [ UB2 ST ] [ UB2 ST ] [ PDA ST ] [ PDA ST ]
[ PDA ST ] [ PDA ST ] EOM;

```

```

/* ADT/ACK - Discharge/end visit */
ADT_A02 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST [ PD1 ST ] [{ ARV
ST }] [{ ROL ST }] PV1 ST [ PV2 ST ] [{ ARV ST }] [{ ROL ST }] [{ DB1 ST }] [{
OBX ST }] [ PDA ST ] EOM;

```

Appendix C: BNF Message Descriptions

```
/* ADT/ACK - Pending admit */
ADT_A03 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST [ PD1 ST ] [{ ARV
ST }] [{ ROL ST }] [{ NK1 ST }] PV1 ST [ PV2 ST ] [{ ARV ST }] [{ ROL ST }] [{
DB1 ST }] [{ AL1 ST }] [{ DG1 ST }] [ DRG ST ] [{ ST PR1 ST [{ ROL ST }] }] ST
[{ OBX ST }] [{ GT1 ST }] [{ ST IN1 ST [ IN2 ST ] [ IN3 ST }] [{ ROL ST }] [{
AUT ST }] [{ RF1 ST }] ST [ ACC ST ] [ PDA ST ] EOM;
```

```
/* ADT/ACK - Change an inpatient to an outpatient */
ADT_A05 := SOM MSH ST MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [{ SFT ST
}] [{ SFT ST }] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] EVN ST EVN ST EVN
ST EVN ST PID ST PID ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [ PD1 ST ] [ PD1
ST ] [{ ARV ST }] [{ ARV ST }] [{ ARV ST }] [{ ARV ST }] [{ ROL ST }] [{ ROL
ST }] [{ ROL ST }] [{ ROL ST }] [{ NK1 ST }] [{ NK1 ST }] [{ NK1 ST }] [{ NK1
ST }] PV1 ST PV1 ST PV1 ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ PV2 ST ] [ PV2 ST ]
[{ ARV ST }] [{ ARV ST }] [{ ARV ST }] [{ ARV ST }] [{ ROL ST }] [{ ROL ST }]
[{ ROL ST }] [{ ROL ST }] [{ DB1 ST }] [{ DB1 ST }] [{ DB1 ST }] [{ DB1 ST }]
[{ OBX ST }] [{ OBX ST }] [{ OBX ST }] [{ OBX ST }] [{ AL1 ST }] [{ AL1 ST }]
[{ AL1 ST }] [{ AL1 ST }] [{ DG1 ST }] [{ DG1 ST }] [{ DG1 ST }] [{ DG1 ST }]
[ DRG ST ] [ DRG ST ] [ DRG ST ] [ DRG ST ] [{ ST [{ ST [{ ST [{ ST PR1 ST PR1
ST PR1 ST PR1 ST [{ ROL ST }] [{ ROL ST }] [{ ROL ST }] [{ ROL ST }] }] ST }]
ST }] ST [{ GT1 ST }] [{ GT1 ST }] [{ GT1 ST }] [{ GT1 ST }] [{ ST [{ ST
[{ ST [{ ST IN1 ST IN1 ST IN1 ST IN1 ST [ IN2 ST ] [ IN2 ST ] [ IN2 ST ] [ IN2
ST ] [ IN3 ST }] [ IN3 ST }] [ IN3 ST }] [ IN3 ST }] [{ ROL ST }] [{ ROL
ST }] [{ ROL ST }] [{ ROL ST }] [{ AUT ST }] [{ AUT ST }] [{ AUT ST }] [{ AUT
ST }] [{ RF1 ST }] [{ RF1 ST }] [{ RF1 ST }] [{ RF1 ST }] ST ST ST ST ST ST
ST [ ACC ST ] [ ACC ST ] [ ACC ST ] [ ACC ST ] [ UB1 ST ] [ UB1 ST ] [ UB1 ST
] [ UB1 ST ] [ UB2 ST ] [ UB2 ST ] [ UB2 ST ] [ UB2 ST ] EOM;
```

```
/* ADT/ACK - Patient departing - tracking */
ADT_A06 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EVN ST EVN ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [{ ARV ST }] [{ ARV ST }] [{
ROL ST }] [{ ROL ST }] [ MRG ST ] [ MRG ST ] [{ NK1 ST }] [{ NK1 ST }] PV1 ST
PV1 ST [ PV2 ST ] [ PV2 ST ] [{ ARV ST }] [{ ARV ST }] [{ ROL ST }] [{ ROL ST
}] [{ DB1 ST }] [{ DB1 ST }] [{ OBX ST }] [{ OBX ST }] [{ AL1 ST }] [{ AL1 ST
}] [{ DG1 ST }] [{ DG1 ST }] [ DRG ST ] [ DRG ST ] [{ ST [{ ST PR1 ST PR1 ST
[{ ROL ST }] [{ ROL ST }] }] ST }] ST [{ GT1 ST }] [{ GT1 ST }] [{ ST [{ ST
IN1 ST IN1 ST [ IN2 ST ] [ IN2 ST ] [ IN3 ST }] [ IN3 ST }] [{ ROL ST }] [{
ROL ST }] ST ST ST [ ACC ST ] [ ACC ST ] [ UB1 ST ] [ UB1 ST ] [ UB2 ST ] [
UB2 ST ] EOM;
```

```
/* ADT/ACK - Cancel transfer */
ADT_A09 := SOM MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [{ SFT ST }] [
UAC ST ] [ UAC ST ] [ UAC ST ] EVN ST EVN ST EVN ST PID ST PID ST PID ST [ PD1
ST ] [ PD1 ST ] [ PD1 ST ] PV1 ST PV1 ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ PV2 ST
] [{ DB1 ST }] [{ DB1 ST }] [{ DB1 ST }] [{ OBX ST }] [{ OBX ST }] [{ OBX ST
}] EOM;
```

```
/* ADT/ACK - Pending transfer */
ADT_A12 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST [ PD1 ST ] PV1 ST
[ PV2 ST ] [{ DB1 ST }] [{ OBX ST }] EOM;
```

```
/* ADT/ACK - Pending discharge */
```


Appendix C: BNF Message Descriptions

```
/* ADT/ACK - Change patient identifier list */
ADT_A43 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EVN ST EVN ST { ST { ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] MRG ST MRG ST } ST
} ST EOM;
```

```
/* ADT/ACK - Move visit information - visit number */
ADT_A44 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EVN ST EVN ST { ST { ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [{ ARV ST }] [{
ARV ST }] MRG ST MRG ST } ST } ST EOM;
```

```
/* ADT/ACK - Change visit number */
ADT_A45 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST [ PD1 ST ] { ST
MRG ST PV1 ST } ST EOM;
```

```
/* ADT/ACK - Cancel leave of absence for a patient */
ADT_A50 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EVN ST EVN ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] MRG ST MRG ST PV1 ST PV1 ST
EOM;
```

```
/* ADT/ACK - Cancel change attending doctor */
ADT_A52 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EVN ST EVN ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] PV1 ST PV1 ST [ PV2 ST ] [
PV2 ST ] EOM;
```

```
/* ADT/ACK - Update allergy information */
ADT_A54 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EVN ST EVN ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [{ ROL ST }] [{ ROL ST }]
PV1 ST PV1 ST [ PV2 ST ] [ PV2 ST ] [{ ROL ST }] [{ ROL ST }] EOM;
```

```
/* ADT/ACK - Change consulting doctor */
ADT_A60 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST [{ ARV ST }] [ PV1
ST ] [ PV2 ST ] [{ ARV ST }] [{ ST IAM ST [{ NTE ST }] [{ IAR ST }] }] ST
EOM;
```

```
/* BAR/ACK - Add patient accounts */
ADT_A61 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EVN ST EVN ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [{ ROL ST }] [{ ROL ST }]
PV1 ST PV1 ST [{ ROL ST }] [{ ROL ST }] [ PV2 ST ] [ PV2 ST ] EOM;
```

```
/* BAR/ACK - Purge patient accounts */
BAR_P01 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST [ PD1 ST ] [{ PRT
ST }] [{ ROL ST }] { ST [ PV1 ST ] [ PV2 ST ] [{ PRT ST }] [{ ROL ST }] [{ DB1
ST }] [{ OBX ST }] [{ AL1 ST }] [{ DG1 ST }] [ DRG ST ] [{ ST PR1 ST [{ PRT ST
}] [{ ROL ST }] }] ST [{ GT1 ST }] [{ NK1 ST }] [{ ST IN1 ST [ IN2 ST ] [{ IN3
ST }] [{ PRT ST }] [{ ROL ST }] }] ST [ ACC ST ] [ UB1 ST ] [ UB2 ST ] } ST
EOM;
```

```
/* BAR/ACK - Update account */
```



```
BAR_P02 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST { ST PID ST [ PD1 ST ] [
PV1 ST ] [{ DB1 ST }] } ST EOM;
```

```
/* BAR/ACK - End account */
BAR_P05 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST [ PD1 ST ] [{ PRT
ST }] [{ ROL ST }] { ST [ PV1 ST ] [ PV2 ST ] [{ PRT ST }] [{ ROL ST }] [{ DB1
ST }] [{ OBX ST }] [{ AL1 ST }] [{ DG1 ST }] [ DRG ST ] [ ST PR1 ST [{ PRT ST
}] [{ ROL ST }] }] ST [{ GT1 ST }] [{ NK1 ST }] [ ST IN1 ST [ IN2 ST ] [{ IN3
ST }] [{ PRT ST }] [{ ROL ST }] }] ST [ ACC ST ] [ UB1 ST ] [ UB2 ST ] [ ABS
ST ] [{ BLC ST }] [ RMI ST ] } ST EOM;
```

```
/* BAR/ACK -Transmit Ambulatory Payment Classification(APC) */
BAR_P06 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST { ST PID ST [ PV1 ST ] }
ST EOM;
```

```
/* BAR/ACK - Update Diagnosis/Procedure */
BAR_P10 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST PV1 ST [{ DG1 ST
}] GP1 ST [ ST PR1 ST [ GP2 ST ] ]] ST EOM;
```

```
/* BPS - Blood product dispense status */
BAR_P12 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST PV1 ST [{ DG1 ST
}] [ DRG ST ] [ ST PR1 ST [{ PRT ST }] [{ ROL ST }] ]] ST [ OBX ST ] EOM;
```

```
/* BRP - Blood product dispense status acknowledgment */
BPS_O29 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1
ST ] [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] [ ST PV1 ST [ PV2 ST ] [{ PRT ST
}] ] ST ] ST { ST ORC ST [{ PRT ST }] [ ST TQ1 ST [{ TQ2 ST }] ] ST BPO ST
[{ NTE ST }] [ ST BPX ST [{ NTE ST }] ] ST } ST EOM;
```

```
/* BRT - Blood product transfusion/disposition acknowledgment */
BRP_O30 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ PRT ST }] [{ ARV ST }] [ ST ORC ST [{ PRT ST }] [{ ST TQ1
ST [{ TQ2 ST }] ] ST [ BPO ST ] [{ BPX ST }] ] ST ] ST ] ST EOM;
```

```
/* BTS - Blood product transfusion/disposition */
BRT_O32 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ PID ST ] [{ ARV ST }] [ ST ORC ST [{ PRT ST }] [ ST TQ1 ST [{ TQ2 ST
}] ] ST [ BPO ST ] [{ BTX ST }] ] ST ] ST EOM;
```

```
/* Collaborative Care Fetch / Collaborative Care Information */
BTS_O31 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1
ST ] [{ PRT ST }] [{ NTE ST }] [ ST PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST ] ST {
ST ORC ST [{ PRT ST }] [ ST TQ1 ST [{ TQ2 ST }] ] ST BPO ST [{ NTE ST }] [
ST BTX ST [{ NTE ST }] ] ST } ST EOM;
```

```
/* Collaborative Care Message */
CCF_I22 := SOM MSH ST [{ SFT ST }] [ UAC ST ] PID ST EOM;
```

Appendix C: BNF Message Descriptions

```
/* Collaborative Care Query/Collaborative Care Query Update */
CCM_I21 := SOM MSH ST [{ SFT ST }] [ UAC ST ] PID ST [ PD1 ST ] [{ NK1 ST }]
[{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [{ ST SCH ST [{ ST RGS ST [{ ST < ST
AIS ST | ST AIG ST | ST AIL ST | ST AIP ST > ST [{ ST OBX ST [{ PRT ST }] }]
ST }] ST }] ST [{ ST ORC ST [{ ST < ST OBR ST | ST ODS ST | ST PR1 ST |
ST RF1 ST | ST AL1 ST | ST IAM ST | ST ACC ST | ST RMI ST | ST DB1 ST | ST DG1
ST | ST DRG ST | ST PDA ST > ST [{ ST OBX ST [{ PRT ST }] }] ST }] ST [{ ST <
ST ROL ST | ST PRD ST > ST [{ VAR ST }] }] ST [{ CTI ST }] }] ST { ST PV1 ST [
PV2 ST ] } ST [{ ST ORC ST [ ST RXO ST { RXR ST } [{ RXC ST }] [{ ST OBX ST [{
PRT ST }] }] ST ] ST [ ST RXE ST { RXR ST } [{ RXC ST }] [{ ST OBX ST [{ PRT
ST }] }] ST ] ST [{ ST { RXA ST } RXR ST [{ ST OBX ST [{ PRT ST }] }] ST }] ST
[{ CTI ST }] }] ST [{ ST PRB ST [{ VAR ST }] [{ ST < ST ROL ST | ST PRD ST >
ST [{ VAR ST }] }] ST [{ ST OBX ST [{ PRT ST }] }] ST }] ST [{ ST GOL ST [{
VAR ST }] [{ ST < ST ROL ST | ST PRD ST > ST [{ VAR ST }] }] ST [{ ST OBX ST
[{ PRT ST }] }] ST }] ST [{ ST PTH ST [{ VAR ST }] [{ ST < ST ROL ST | ST PRD
ST > ST [{ VAR ST }] }] ST [{ ST OBX ST [{ PRT ST }] }] ST }] ST [{ REL ST }]
EOM;
```

```
/* Modify Collaborative Care Referral */
CCQ_I19 := SOM MSH ST [{ SFT ST }] [ UAC ST ] RF1 ST [{ ST PRD ST [{ CTD ST }]
}] ST [{ REL ST }] EOM;
```

```
/* Asynchronous Collaborative Care Update */
CCR_I16 := SOM MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [{ SFT ST }] [
UAC ST ] [ UAC ST ] [ UAC ST ] { RF1 ST } { RF1 ST } { RF1 ST } { ST { ST { ST
PRD ST PRD ST PRD ST [{ CTD ST }] [{ CTD ST }] [{ CTD ST }] } ST } ST } ST [{
ST [{ ST [{ ST ORC ST ORC ST ORC ST [{ ST [{ ST [{ ST TQ1 ST TQ1 ST TQ1 ST [{
TQ2 ST }] [{ TQ2 ST }] [{ TQ2 ST }] }] ST }] ST } ST { ST { ST < ST < ST
< ST OBR ST OBR ST OBR ST | ST | ST | ST RXO ST RXO ST RXO ST | ST | ST | ST
ODS ST ODS ST ODS ST | ST | ST | ST PR1 ST PR1 ST PR1 ST > ST > ST > ST [{ ST
[{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT ST }] [{ PRT ST }] [{ PRT ST }] }] ST
}] ST }] ST } ST } ST } ST [{ CTI ST }] [{ CTI ST }] [{ CTI ST }] }] ST }] ST
}] ST { ST { ST { ST PID ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [ PD1 ST ] }
ST } ST } ST [{ NK1 ST }] [{ NK1 ST }] [{ NK1 ST }] [{ ST [{ ST [{ ST IN1 ST
IN1 ST IN1 ST [ IN2 ST ] [ IN2 ST ] [ IN2 ST ] [ IN3 ST ] [ IN3 ST ] [ IN3 ST
] }] ST }] ST } ST [{ ST [{ ST [{ ST SCH ST SCH ST SCH ST [{ ST [{ ST [{ ST
RGS ST RGS ST RGS ST [{ ST [{ ST [{ ST < ST < ST < ST AIS ST AIS ST AIS ST |
ST | ST | ST AIG ST AIG ST AIG ST | ST | ST | ST AIL ST AIL ST AIL ST | ST |
ST | ST AIP ST AIP ST AIP ST > ST > ST > ST [{ ST [{ ST [{ ST OBX ST OBX ST
OBX ST [{ PRT ST }] [{ PRT ST }] [{ PRT ST }] }] ST }] ST }] ST }] ST }] ST }]
ST }] ST }] ST }] ST }] ST [{ ST [{ ST [{ ST ORC ST ORC ST ORC ST
[{ ST [{ ST [{ ST < ST < ST < ST OBR ST OBR ST OBR ST | ST | ST | ST ODS ST
ODS ST ODS ST | ST | ST | ST PR1 ST PR1 ST PR1 ST | ST | ST | ST RF1 ST RF1 ST
RF1 ST | ST | ST | ST AL1 ST AL1 ST AL1 ST | ST | ST | ST IAM ST IAM ST IAM ST
| ST | ST | ST ACC ST ACC ST ACC ST | ST | ST | ST RMI ST RMI ST RMI ST | ST |
ST | ST DB1 ST DB1 ST DB1 ST | ST | ST | ST DG1 ST DG1 ST DG1 ST | ST | ST |
ST DRG ST DRG ST DRG ST > ST > ST > ST [{ ST [{ ST [{ ST OBX ST OBX ST OBX ST
[{ PRT ST }] [{ PRT ST }] [{ PRT ST }] }] ST }] ST }] ST }] ST }] ST [{
ST [{ ST [{ ST < ST < ST < ST ROL ST ROL ST ROL ST | ST | ST | ST PRD ST PRD
ST PRD ST > ST > ST > ST [{ VAR ST }] [{ VAR ST }] [{ VAR ST }] }] ST }] ST
}] ST [{ CTI ST }] [{ CTI ST }] [{ CTI ST }] }] ST }] ST }] ST { ST { ST { ST PV1
ST PV1 ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ PV2 ST ] } ST } ST } ST [{ ST [{ ST
[{ ST ORC ST ORC ST ORC ST [ ST [ ST [ ST RXO ST RXO ST RXO ST { RXR ST } {
RXR ST } { RXR ST } [{ RXC ST }] [{ RXC ST }] [{ RXC ST }] [{ ST [{ ST [{ ST
OBX ST OBX ST OBX ST [{ PRT ST }] [{ PRT ST }] [{ PRT ST }] }] ST }] ST }] ST
] ST ] ST ] ST [ ST [ ST [ ST RXE ST RXE ST RXE ST { RXR ST } { RXR ST } { RXR
ST } [{ RXC ST }] [{ RXC ST }] [{ RXC ST }] [{ ST [{ ST [{ ST OBX ST OBX ST
OBX ST [{ PRT ST }] [{ PRT ST }] [{ PRT ST }] }] ST }] ST }] ST ] ST ] ST ] ST
```

```

[ { ST [ { ST [ { ST { RXA ST } { RXA ST } { RXA ST } RXR ST RXR ST RXR ST [ { ST
[ { ST [ { ST OBX ST OBX ST OBX ST [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] } ST
} ] ST } ] ST } ] ST } ] ST [ { CTI ST } ] [ { CTI ST } ] [ { CTI ST } ] } ST } ]
ST } ] ST [ { ST [ { ST [ { ST PRB ST PRB ST PRB ST [ { VAR ST } ] [ { VAR ST } ] [ {
VAR ST } ] [ { ST [ { ST [ { ST < ST < ST < ST ROL ST ROL ST ROL ST | ST | ST | ST
PRD ST PRD ST PRD ST > ST > ST > ST [ { VAR ST } ] [ { VAR ST } ] [ { VAR ST } ] } ]
ST } ] ST } ] ST [ { ST [ { ST [ { ST OBX ST OBX ST OBX ST [ { PRT ST } ] [ { PRT ST
} ] [ { PRT ST } ] } ] ST } ] ST } ] ST } ] ST } ] ST [ { ST [ { ST [ { ST GOL ST
GOL ST GOL ST [ { VAR ST } ] [ { VAR ST } ] [ { VAR ST } ] [ { ST [ { ST [ { ST < ST <
ST < ST ROL ST ROL ST ROL ST | ST | ST | ST PRD ST PRD ST PRD ST > ST > ST > ST
[ { VAR ST } ] [ { VAR ST } ] [ { VAR ST } ] } ] ST } ] ST } ] ST [ { ST [ { ST [ { ST
OBX ST OBX ST OBX ST [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] } ] ST } ] ST } ] ST
} ] ST } ] ST [ { ST [ { ST [ { ST PTH ST PTH ST PTH ST [ { VAR ST } ] [ { VAR
ST } ] [ { VAR ST } ] [ { ST [ { ST [ { ST < ST < ST < ST ROL ST ROL ST ROL ST | ST
| ST | ST PRD ST PRD ST PRD ST > ST > ST > ST [ { VAR ST } ] [ { VAR ST } ] [ { VAR
ST } ] } ] ST } ] ST } ] ST [ { ST [ { ST [ { ST OBX ST OBX ST OBX ST [ { PRT ST } ] [ {
PRT ST } ] [ { PRT ST } ] } ] ST } ] ST } ] ST } ] ST } ] ST [ { REL ST } ] [ { REL
ST } ] [ { REL ST } ] EOM;

```

```

/* CRM - Register a patient on a clinical trial */
CCU_I20 := SOM MSH ST [ { SFT ST } ] [ UAC ST ] RF1 ST [ { ST PRD ST [ { CTD ST } ]
} ] ST [ { ST PID ST [ PD1 ST ] } ] ST [ { NK1 ST } ] [ { ST IN1 ST [ IN2 ST ] [ IN3
ST ] } ] ST [ { ST SCH ST [ { ST RGS ST [ { ST < ST AIS ST | ST AIG ST | ST AIL ST
| ST AIP ST > ST [ { ST OBX ST [ { PRT ST } ] } ] ST } ] ST } ] ST [ { ST ORC
ST [ { ST < ST OBR ST | ST ODS ST | ST PR1 ST | ST RF1 ST | ST AL1 ST | ST IAM
ST | ST ACC ST | ST RMI ST | ST DB1 ST | ST DG1 ST | ST DRG ST | ST PDA ST >
ST [ { ST OBX ST [ { PRT ST } ] } ] ST } ] ST [ { ST < ST ROL ST | ST PRD ST > ST [ {
VAR ST } ] } ] ST [ { CTI ST } ] } ] ST [ { ST PV1 ST [ PV2 ST ] } ] ST [ { ST ORC ST [
ST RXO ST { RXR ST } [ { RXC ST } ] [ { ST OBX ST [ { PRT ST } ] } ] ST ] ST [ ST
RXE ST { RXR ST } [ { RXC ST } ] [ { ST OBX ST [ { PRT ST } ] } ] ST ] ST [ { ST {
RXA ST } RXR ST [ { ST OBX ST [ { PRT ST } ] } ] ST } ] ST [ { CTI ST } ] } ] ST [ { ST
PRB ST [ { VAR ST } ] [ { ST < ST ROL ST | ST PRD ST > ST [ { VAR ST } ] } ] ST [ {
ST OBX ST [ { PRT ST } ] } ] ST } ] ST [ { ST GOL ST [ { VAR ST } ] [ { ST < ST ROL ST
| ST PRD ST > ST [ { VAR ST } ] } ] ST [ { ST OBX ST [ { PRT ST } ] } ] ST } ] ST [ {
ST PTH ST [ { VAR ST } ] [ { ST < ST ROL ST | ST PRD ST > ST [ { VAR ST } ] } ] ST
[ { ST OBX ST [ { PRT ST } ] } ] ST } ] ST [ { REL ST } ] EOM;

```

```

/* CSU - Automated time intervals for reporting, like monthly */
CRM_C01 := SOM MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST [ { SFT
ST } ] [ { SFT ST } ] [ { SFT ST } ] [ { SFT ST } ] [ { SFT ST } ] [ { SFT ST } ] [ { SFT
ST } ] [ { SFT ST } ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [
UAC ST ] [ UAC ST ] [ UAC ST ] { ST { ST { ST { ST { ST { ST { ST { ST PID ST
PID ST PID ST PID ST PID ST PID ST PID ST [ { PRT ST } ] [ { PRT ST } ] [ {
PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ {
PRT ST } ] [ { ARV ST } ] [ { ARV ST } ] [ { ARV ST } ] [ { ARV ST } ] [ { ARV ST } ] [ {
ARV ST } ] [ { ARV ST } ] [ ST [ ST [ ST [ ST [ ST [ ST [ ST [ ST [ ST PV1 ST PV1 ST
PV1 ST PV1 ST PV1 ST PV1 ST PV1 ST [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST
} ] [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST
} ] ST ] ST
] ST ] ST ] ST ] ST ] ST ] ST CSR ST CSR ST CSR ST CSR ST CSR ST CSR ST CSR ST
CSR ST [ { CSP ST } ] [ { CSP ST } ] [ { CSP ST } ] [ { CSP ST } ] [ { CSP ST } ] [ { CSP
ST } ] [ { CSP ST } ] [ { CSP ST } ] } ST } ST } ST } ST } ST } ST } ST } ST EOM;

```

```

/* Donor Eligibility Message */
CSU_C09 := SOM MSH ST MSH ST MSH ST MSH ST [ { SFT ST } ] [ { SFT ST } ] [ { SFT ST
} ] [ { SFT ST } ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] { ST { ST { ST {
ST PID ST PID ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [ PD1 ST ] [ PD1 ST ] [ {
PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ { ARV ST } ] [ { ARV ST } ] [ {

```

```

/* Donation Procedure Message */
DFT_P11 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EVN ST PID ST [ PD1 ST ] [{ PRT
ST }] [{ ROL ST }] [ PV1 ST ] [ PV2 ST ] [{ PRT ST }] [{ ROL ST }] [{ DB1 ST
}] [{ ST [ ORC ST ] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST OBR ST [{ NTE ST }] ]
ST [{ ST OBX ST [{ NTE ST }] }] ST }] ST [{ DG1 ST }] [ DRG ST ] [{ GT1 ST }]
[{ ST IN1 ST [ IN2 ST ] [{ IN3 ST }] [{ PRT ST }] [{ ROL ST }] }] ST [ ACC ST
] { ST FT1 ST [{ ST PR1 ST [{ PRT ST }] [{ ROL ST }] }] ST [{ ST [ ORC ST ] [{
ST TQ1 ST [{ TQ2 ST }] }] ST [ ST OBR ST [{ NTE ST }] ] ST [{ ST OBX ST [{ NTE
ST }] }] ST }] ST [{ DG1 ST }] [ DRG ST ] [{ GT1 ST }] [{ ST IN1 ST [ IN2 ST ]
[{ IN3 ST }] }] [{ PRT ST }] [{ ROL ST }] }] ST } ST EOM;

```

```

/* Donor Request to Collect Message */
DPR_O48 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [ ST PID ST [ PD1 ST ] [{ OBX ST
}] [{ NTE ST }] [{ AL1 ST }] [{ ARV ST }] [ ST [ PV1 ST ] [{ NTE ST }] ] ST ]
ST { ST OBR ST [{ NTE ST }] } ST [ ST DON ST [{ OBX ST }] [{ NTE ST }] [ ST [{
BUI ST }] [{ NTE ST }] ] ST ] ST EOM;

```

```

/* EAC/ACK - Automated equipment command */
DRC_O47 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [ ST PID ST [ PD1 ST ] [{ OBX ST
}] [{ NTE ST }] [{ AL1 ST }] [{ ARV ST }] [ ST [ PV1 ST ] [{ NTE ST }] ] ST ]
ST { ST OBR ST [{ NTE ST }] } ST EOM;

```

```

/* EAN/ACK - Automated equipment notification */
EAN_U07 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EQU ST { ST ECD ST [ TQ1 ST ] [
ST SAC ST [{ OBR ST }] [{ SPM ST }] ] ST [ CNS ST ] } ST EOM;

```

```

/* EAR/ACK - Automated equipment response */
EAN_U09 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EQU ST { ST NDS ST [ NTE ST ] }
ST EOM;

```

```

/* Submit HealthCare Services Invoice */
EAR_U08 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EQU ST { ST ECD ST [ ST SAC ST
[{ SPM ST }] ] ST ECR ST } ST EOM;

```

```

/* Cancel HealthCare Services Invoice */
EHC_E01 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] < ST IVC ST [ PYE ST ] [{ CTD
ST }] [ AUT ST ] [{ LOC ST }] [{ PRT ST }] [{ ROL ST }] { ST PSS ST { ST PSG
ST [{ LOC ST }] [{ PRT ST }] [{ ROL ST }] [{ ST PID ST [ PV1 ST ] [ PV2 ST ]
[{ ACC ST }] { ST IN1 ST [ IN2 ST ] } ST [{ ST DG1 ST [{ NTE ST }] }] ST [{
OBX ST }] } ST { ST PSL ST [{ NTE ST }] [{ ADJ ST }] [ AUT ST ] [{ LOC ST }]
[{ PRT ST }] [{ ROL ST }] } ST [{ ST PR1 ST [{ NTE ST }] [{ PRT ST }] [{ ROL
ST }] } ST [{ IPR ST }] } ST } ST > ST EOM;

```

```

/* Re-Assess HealthCare Services Invoice Request */
EHC_E02 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] < ST IVC ST PYE ST [{ CTD ST
}] [{ NTE ST }] [{ ST PSS ST [{ ST PSG ST [{ PSL ST }] } ST }] ST > ST EOM;

```

```

/* Edit/Adjudication Results */
EHC_E04 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] < ST IVC ST [{ NTE ST }] [{ ST
PSS ST [{ ST PSG ST [{ PSL ST }] } ST }] ST > ST EOM;

```

```

/* Request Additional Information */
EHC_E10 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] MSA ST [{ ERR ST }] { ST IPR
ST [{ NTE ST }] PYE ST IN1 ST [ IN2 ST ] IVC ST { ST PSS ST { ST PSG ST { ST
PSL ST [{ ADJ ST }] } ST } ST } ST EOM;

```

```

/* Additional Information Response */
EHC_E12 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] RFI ST [{ CTD ST }] IVC ST PSS
ST PSG ST [ PID ST ] [{ PSL ST }] { ST [ CTD ST ] OBR ST [ NTE ST ] [{ OBX ST
}] } ST EOM;

```

Appendix C: BNF Message Descriptions

```
/* Payment/Remittance Advice */
EHC_E13 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] MSA ST [{ ERR ST }] RFI ST [{
CTD ST }] IVC ST PSS ST PSG ST [ PID ST ] [ PSL ST ] { ST [ CTD ST ] OBR ST [
NTE ST ] { ST OBX ST [ NTE ST ] [ TXA ST ] } ST } ST EOM;

/* Submit Authorization Request */
EHC_E15 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] < ST PMT ST PYE ST > ST [{ ST
IPR ST IVC ST { ST PSS ST { ST PSG ST { ST PSL ST [{ ADJ ST }] } ST } ST } ST
}] ST [{ ST ADJ ST [ PRT ST ] [ ROL ST ] }] ST EOM;

/* Cancel Authorization Request */
EHC_E20 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] < ST IVC ST { CTD ST } [{ LOC
ST }] [{ ROL ST }] { ST PID ST [{ ACC ST }] { ST IN1 ST [ IN2 ST ] } ST [ ST {
ST DG1 ST [{ NTE ST }] } ST ] ST [{ OBX ST }] } ST { ST PSL ST [{ NTE ST }] [{
ADJ ST }] [{ LOC ST }] [{ PRT ST }] [{ ROL ST }] } ST > ST EOM;

/* Authorization Response */
EHC_E21 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] < ST IVC ST { ST PSL ST [{ NTE
ST }] [ AUT ST ] } ST > ST EOM;

/* ESR/ACK - Automated equipment status request */
EHC_E24 := SOM MSH ST [{ SFT ST }] [{ UAC ST }] MSA ST [{ ERR ST }] < ST IVC
ST { ST PSL ST [ AUT ST ] [{ ADJ ST }] } ST > ST EOM;

/* ESU/ACK - Automated equipment status update */
ESR_U02 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EQU ST EOM;

/* INR/ACK - Automated equipment inventory request */
ESU_U01 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EQU ST [{ ISD ST }] EOM;

/* INU/ACK - Automated equipment inventory update */
INR_U06 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EQU ST { INV ST } EOM;

/* LSU/ACK - Automated equipment log/service update */
INU_U05 := SOM MSH ST [{ SFT ST }] [ UAC ST ] EQU ST { INV ST } EOM;

/* MDM/ACK - Original document notification */
LSU_U12 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EQU ST EQU ST { EQP ST } { EQP ST } EOM;

/* MDM/ACK - Document status change notification and content */
MDM_T01 := SOM MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT
ST }] [{ SFT ST }] [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST
] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] EVN ST EVN ST EVN ST EVN ST EVN
ST EVN ST PID ST PID ST PID ST PID ST PID ST PID ST PV1 ST PV1 ST PV1 ST PV1
ST PV1 ST PV1 ST [{ ST [{ ST [{ ST [{ ST [{ ST [{ ST ORC ST ORC ST ORC ST ORC
```

```
ST ORC ST ORC ST [{ ST [{ ST [{ ST [{ ST [{ ST [{ ST TQ1 ST TQ1 ST TQ1 ST TQ1
ST TQ1 ST TQ1 ST [{ TQ2 ST }} [{ TQ2 ST }} [{ TQ2 ST }} [{ TQ2 ST }} [{ TQ2 ST
}} [{ TQ2 ST }} }} ST }} ST }} ST }} ST }} ST }} ST OBR ST OBR ST OBR ST OBR
ST OBR ST OBR ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST
}} [{ NTE ST }} }} ST }} ST }} ST }} ST }} ST }} ST TXA ST TXA ST TXA ST TXA
ST TXA ST TXA ST [{ CON ST }} [{ CON ST }} [{ CON ST }} [{ CON ST }} [{ CON ST
}} [{ CON ST }} EOM;
```

```
/* MFN/MFK - Test /observation batteries master file */
MDM_T02 := SOM MSH ST MSH ST MSH ST MSH ST MSH ST [{ SFT ST }} [{ SFT ST }} [{
SFT ST }} [{ SFT ST }} [{ SFT ST }} [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST
] [ UAC ST ] EVN ST EVN ST EVN ST EVN ST EVN ST EVN ST PID ST PID ST PID ST PID ST
PID ST PV1 ST PV1 ST PV1 ST PV1 ST PV1 ST [{ ST [{ ST [{ ST [{ ST [{ ST ORC ST
ORC ST ORC ST ORC ST ORC ST [{ ST [{ ST [{ ST [{ ST [{ ST TQ1 ST TQ1 ST TQ1 ST
TQ1 ST TQ1 ST [{ TQ2 ST }} [{ TQ2 ST }} [{ TQ2 ST }} [{ TQ2 ST }} [{ TQ2 ST }}
}} ST }} ST }} ST }} ST }} ST OBR ST OBR ST OBR ST OBR ST OBR ST [{ NTE ST }}
[{ NTE ST }} [{ NTE ST }} [{ NTE ST }} }} ST }} ST }} ST }} ST }} ST TXA ST TXA
ST TXA ST TXA ST TXA ST TXA ST [{ CON ST }} [{ CON ST }} [{ CON ST }}
[{ CON ST }} [{ CON ST }} { ST { ST { ST { ST { ST OBX ST OBX ST OBX ST OBX ST
OBX ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} } ST }
ST } ST } ST } EOM;
```

```
/* MFN/MFK - Master file - staff practitioner */
MFK_M01 := SOM MSH ST MSH ST [{ SFT ST }} [{ SFT ST }} [ UAC ST ] [ UAC ST ]
MSA ST MSA ST [{ ERR ST }} [{ ERR ST }} MFI ST MFI ST [{ MFA ST }} [{ MFA ST
}} EOM;
```

```
/* MFN/MFK - Master files charge description */
MFN_M02 := SOM MSH ST [{ SFT ST }} [ UAC ST ] MFI ST { ST MFE ST STF ST [{ PRA
ST }} [{ ORG ST }} [{ AFF ST }} [{ LAN ST }} [{ EDU ST }} [{ CER ST }} [{ NTE
ST }} } ST EOM;
```

```
/* MFN/MFK - Patient location master file */
MFN_M04 := SOM MSH ST [{ SFT ST }} [ UAC ST ] MFI ST [{ NTE ST }} { ST MFE ST
[{ NTE ST }} CDM ST [{ NTE ST }} [{ PRC ST }} } ST EOM;
```

```
/* MFN/MFK - Clinical study with phases and schedules master file */
MFN_M05 := SOM MSH ST [{ SFT ST }} [ UAC ST ] MFI ST { ST MFE ST LOC ST [{ LCH
ST }} [{ LRL ST }} { ST LDP ST [{ LCH ST }} [{ LCC ST }} } ST } ST EOM;
```

```
/* MFN/MFK - Clinical study without phases but with schedules master file
*/
MFN_M06 := SOM MSH ST [{ SFT ST }} [ UAC ST ] MFI ST { ST MFE ST CM0 ST [{ ST
CM1 ST [{ CM2 ST }} }} ST } ST EOM;
```

```
/* MFN/MFK - Test/observation (numeric) master file */
MFN_M07 := SOM MSH ST [{ SFT ST }} [ UAC ST ] MFI ST { ST MFE ST CM0 ST [{ CM2
ST }} } ST EOM;
```

```
/* MFN/MFK - Test/observation (categorical) master file */
```

Appendix C: BNF Message Descriptions

```
MFN_M08 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { ST MFE ST OM1 ST [{ OMC  
ST }] [{ PRT ST }] [ OM2 ST ] [ OM3 ST ] [{ OM4 ST }] } ST EOM;
```

```
/* MFN/MFK - Test/calculated observations master file */  
MFN_M09 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { ST MFE ST OM1 ST [{ OMC  
ST }] [{ PRT ST }] [ ST OM3 ST [{ OM4 ST }] ] ST } ST EOM;
```

```
/* MFN/MFK - Master file notification message */  
MFN_M11 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { ST MFE ST OM1 ST [{ OMC  
ST }] [{ PRT ST }] [ ST OM6 ST OM2 ST ] ST } ST EOM;
```

```
/* MFN/MFK - Master file notification - general */  
MFN_M12 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { ST MFE ST OM1 ST [{ PRT  
ST }] [ ST OM7 ST [{ PRT ST }] ] ST } ST EOM;
```

```
/* MFN/MFK - Inventory item master file notification */  
MFN_M13 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { MFE ST } EOM;
```

```
/* MFN/MFK - Master File Notification Inventory Item Enhanced */  
MFN_M15 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { ST MFE ST IIM ST } ST  
EOM;
```

```
/* DRG Master File Message */  
MFN_M16 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { ST MFE ST ITM ST [{ NTE  
ST }] [{ ST STZ ST [{ NTE ST }] ] ST [{ ST VND ST [{ ST PKG ST [{ PCE ST }]  
}] ST ] ST [{ ST IVT ST [{ ILT ST }] [{ NTE ST }] ] ST } ST EOM;
```

```
/* MFN/MFK - Master file notification - site defined */  
MFN_M17 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { ST MFE ST DMI ST } ST  
EOM;
```

```
/* NMD/ACK - Application management data message (unsolicited) */  
MFN_Znn := SOM MSH ST [{ SFT ST }] [ UAC ST ] MFI ST { ST MFE ST Hxx ST } ST  
EOM;
```

```
/* OMB - Blood product order */  
NMD_N02 := SOM MSH ST [{ SFT ST }] [ UAC ST ] { ST [ ST NCK ST [{ NTE ST }] ]  
ST [ ST NST ST [{ NTE ST }] ] ST [ ST NSC ST [{ NTE ST }] ] ST } ST EOM;
```

```
/* OMD - Diet order */  
OMB_O27 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1  
ST ] [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] [ ST PV1 ST [ PV2 ST ] [{ PRT ST  
}] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] ] ST [ GT1 ST ] [{ AL1 ST }] ] ST  
{ ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] ] ST BPO ST [ SPM ST ] [{  
NTE ST }] [{ DG1 ST }] [ ST OBX ST [{ PRT ST }] [{ NTE ST }] ] ST [{ FT1 ST  
}] [ BLG ST ] } ST EOM;
```



```

/* OMG - General clinical order */
OMD_O03 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1
ST ] [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] [ ST PV1 ST [ PV2 ST ] [{ PRT ST
}] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1 ST }] ] ST
{ ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST { ODS ST } [{
NTE ST }] [{ ST OBX ST [{ PRT ST }] [{ NTE ST }] }] ST ] ST } ST [{ ST ORC ST
[{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST { ODT ST } [{ NTE ST }] }] ST
EOM;

```

```

/* OMI - Imaging order */
OMG_O19 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1
ST ] [{ PRT ST }] [{ NTE ST }] [{ NK1 ST }] [{ ARV ST }] [ ST PV1 ST [ PV2 ST
] [{ PRT ST }] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1
ST }] ] ST { ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST OBR ST [{
NTE ST }] [{ PRT ST }] [ CTD ST ] [{ DG1 ST }] [{ ST OBX ST [{ PRT ST }] [{
NTE ST }] }] ST [{ ST SPM ST [{ ST OBX ST [{ PRT ST }] }] ST [{ ST SAC ST [{
ST OBX ST [{ PRT ST }] }] ST }] ST }] ST [ SGH ST ] [{ ST [ ST PID ST [ PD1 ST
] [{ ARV ST }] [{ PRT ST }] ] ST [ ST PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST [{
AL1 ST }] { ST ORC ST [{ PRT ST }] OBR ST [{ ST TQ1 ST [{ TQ2 ST }] }] ST [{
NTE ST }] [{ PRT ST }] [ CTD ST ] { ST OBX ST [{ PRT ST }] [{ NTE ST }] } ST }
ST ] ST [ SGT ST ] [{ FT1 ST }] [{ CTI ST }] [ BLG ST ] } ST EOM;

```

```

/* OML - Laboratory order */
OMI_O23 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1
ST ] [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] [ ST PV1 ST [ PV2 ST ] [{ PRT ST
}] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1 ST }] ] ST
{ ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST OBR ST [{ NTE ST }]
[{ PRT ST }] [ CTD ST ] [{ DG1 ST }] [{ ST OBX ST [{ PRT ST }] [{ NTE ST }] }]
ST { IPC ST } } ST EOM;

```

```

/* OML - Laboratory order for multiple orders related to a single specimen
*/
OML_O21 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1
ST ] [{ PRT ST }] [{ NTE ST }] [{ NK1 ST }] [{ ARV ST }] [ ST PV1 ST [ PV2 ST
] [{ PRT ST }] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1
ST }] ] ST { ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST OBR
ST [ TCD ST ] [{ NTE ST }] [{ PRT ST }] [ CTD ST ] [{ DG1 ST }] [{ ST OBX ST
[{ PRT ST }] [ TCD ST ] [{ NTE ST }] }] ST [{ ST SPM ST [{ ST OBX ST [{ PRT ST
}] }] ST [{ ST SAC ST [{ ST OBX ST [{ PRT ST }] }] ST }] ST ] ST [ SGH ST ]
[{ ST [ ST PID ST [ PD1 ST ] [{ PRT ST }] [{ ARV ST }] ] ST [ ST PV1 ST [ PV2
ST ] [{ PRT ST }] ] ST [{ AL1 ST }] { ST ORC ST [{ PRT ST }] OBR ST [{ NTE ST
}] [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST { ST OBX ST [{ PRT ST }] [{
NTE ST }] } ST } ST ] ST [ SGT ST ] ] ST [{ FT1 ST }] [{ CTI ST }] [ BLG ST ]
} ST EOM;

```

```

/* OML - Laboratory order for multiple orders related to a single
container of a sp */
OML_O33 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1
ST ] [{ PRT ST }] [{ NTE ST }] [{ NK1 ST }] [{ ARV ST }] [ ST PV1 ST [ PV2 ST
] [{ PRT ST }] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1
ST }] ] ST { ST SPM ST [{ ST OBX ST [{ PRT ST }] }] ST [{ SAC ST }] { ST ORC
ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST OBR ST [ TCD ST ] [{ NTE
ST }] [{ PRT ST }] [{ DG1 ST }] [{ ST OBX ST [{ PRT ST }] [ TCD ST ] [{ NTE ST
}] }] ST [ SGH ST ] [{ ST [ ST PID ST [ PD1 ST ] [{ PRT ST }] [{ ARV ST }] ]
ST [ ST PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST [{ AL1 ST }] { ST ORC ST [{ PRT ST

```

Appendix C: BNF Message Descriptions

```
}} OBR ST [{ NTE ST }] [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST { ST OBX  
ST [{ PRT ST }] [{ NTE ST }] } ST } ST }} ST [ SGT ST ] ] ST [{ FT1 ST }] [{  
CTI ST }] [ BLG ST ] } ST } ST EOM;
```

```
/* Specimen shipment centric laboratory order */  
OML_O35 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1  
ST ] [{ PRT ST }] [{ NTE ST }] [{ NK1 ST }] [{ ARV ST }] [ ST PV1 ST [ PV2 ST  
] [{ PRT ST }] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1  
ST }] ] ST { ST SPM ST [{ ST OBX ST [{ PRT ST }] }] ST { ST SAC ST { ST ORC ST  
[{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST OBR ST [ TCD ST ] [{ NTE ST  
}] [{ PRT ST }] [{ DG1 ST }] [{ ST OBX ST [{ PRT ST }] [ TCD ST ] [{ NTE ST  
}] ST [ SGH ST ] [{ ST [ ST PID ST [ PD1 ST ] [{ PRT ST }] [{ ARV ST }] ] ST [ ST  
PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST [{ AL1 ST }] { ST ORC ST [{ PRT ST }]  
OBR ST [{ NTE ST }] [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST { ST OBX ST  
[{ PRT ST }] [{ NTE ST }] } ST } ST }} ST [ SGT ST ] ] ST [{ FT1 ST }] [{ CTI  
ST }] [ BLG ST ] } ST } ST EOM;
```

```
/* OMN - Non-stock requisition order */  
OML_O39 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1  
ST ] [{ PRT ST }] [{ NTE ST }] [{ NK1 ST }] [{ ARV ST }] [ ST PV1 ST [ PV2 ST  
] [{ PRT ST }] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1  
ST }] ] ST { ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST OBR  
ST [ TCD ST ] [{ NTE ST }] [{ PRT ST }] [ CTD ST ] [{ DG1 ST }] [{ ST OBX ST  
[{ PRT ST }] [ TCD ST ] [{ NTE ST }] }] ST [{ ST SHP ST [{ ST OBX ST [{ PRT ST  
}] }] ST { ST PAC ST [{ ST SPM ST [{ ST OBX ST [{ PRT ST }] }] ST [{ ST SAC ST  
[{ ST OBX ST [{ PRT ST }] }] ST }} ST }} ST } ST }} ST [ FT1 ST ]] [{  
CTI ST }] [ BLG ST ] } ST EOM;
```

```
/* OMP - Pharmacy/treatment order */  
OMN_O07 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1  
ST ] [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] [ ST PV1 ST [ PV2 ST ] [{ PRT ST  
}] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1 ST }] ] ST  
{ ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST RQD ST [ RQ1 ST ] [{  
NTE ST }] [{ ST OBX ST [{ PRT ST }] [{ NTE ST }] }] ST [ BLG ST ] } ST EOM;
```

```
/* DBU - Update Donor Record Message */  
OMP_O09 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ ST  
PD1 ST [{ PRT ST }] ] ST [{ NTE ST }] [{ ARV ST }] [ ST PV1 ST [ PV2 ST ] [{  
PRT ST }] [{ ARV ST }] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST  
] [{ AL1 ST }] ] ST { ST ORC ST [{ ST TQ1 ST [{ TQ2 ST }] }] ST RXD ST [{ PRT  
ST }] [{ NTE ST }] { RXR ST } [{ ST RXC ST [{ NTE ST }] }] ST [{ CDO ST }] [{  
ST OBX ST [{ PRT ST }] [{ NTE ST }] }] ST [{ FT1 ST }] [ BLG ST ] } ST EOM;
```

```
/* OMS - Stock requisition order */  
OMQ_O42 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1  
ST ] [{ PRT ST }] [{ NTE ST }] [{ NK1 ST }] [{ ARV ST }] [ ST PV1 ST [ PV2 ST  
] [{ PRT ST }] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1  
ST }] ] ST { ST ORC ST [{ PRT ST }] OBX ST [{ PRT ST }] TXA ST [ CTD ST ] [{  
DG1 ST }] [{ ST OBX ST [{ PRT ST }] [{ NTE ST }] }] ST [{ ST [ ST PID ST [ PD1  
ST ] [{ PRT ST }] [{ ARV ST }] ] ST [ ST PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST  
[{ AL1 ST }] { ST ORC ST [{ PRT ST }] OBR ST [{ ST TQ1 ST [{ TQ2 ST }] }] ST  
[{ NTE ST }] [{ PRT ST }] [ CTD ST ] { ST OBX ST [{ PRT ST }] [{ NTE ST }] }  
ST } ST }} ST [{ FT1 ST }] [{ CTI ST }] [ BLG ST ] } ST EOM;
```

```

/* OPL - Population/Location-Based Laboratory Order Message */
OMS_O05 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ PD1
ST ] [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] [ ST PV1 ST [ PV2 ST ] [{ PRT ST
}] ] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ] }] ST [ GT1 ST ] [{ AL1 ST }] ] ST
{ ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST RQD ST [ RQ1 ST ] [{
NTE ST }] [{ ST OBX ST [{ PRT ST }] [{ NTE ST }] }] ST [ BLG ST ] } ST EOM;

/* OPR - Population/Location-Based Laboratory Order Acknowledgment Message
*/
OPL_O37 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] { PRT ST } [ ST GT1
ST [{ NTE ST }] ] ST { ST { NK1 ST } [ ST PID ST [ PD1 ST ] [{ PRT ST }] [{
ARV ST }] [{ ST OBX ST [{ PRT ST }] }] ST [{ ST IN1 ST [ IN2 ST ] [ IN3 ST ]
}] ST [{ AL1 ST }] ] ST { ST SPM ST [{ ST OBX ST [{ PRT ST }] }] ST [{ ST SAC
ST [{ ST OBX ST [{ PRT ST }] }] ST }] ST { ST ORC ST [{ PRT ST }] OBR ST [{
PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ TCD ST ] [{ DG1 ST }] [{ ST OBX ST
[{ PRT ST }] }] ST } ST } ST [ SGH ST ] [ ST { NK1 ST } [ ST PID ST [ PD1 ST ]
[{ PRT ST }] [{ ARV ST }] ] ST [ ST PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST [ AL1
ST ] { ST OBR ST [ ORC ST ] [{ PRT ST }] [ ST TQ1 ST [{ TQ2 ST }] ] ST { ST
OBX ST [{ PRT ST }] } ST } ST ] ST [ SGT ST ] [{ FT1 ST }] [{ CTI ST }] [ BLG
ST ] } ST EOM;

/* OPU - Unsolicited Population/Location-Based Laboratory Observation
Message */
OPR_O38 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST { ST { NK1 ST } [ PID ST ] [{ PRT ST }] [{ ARV ST }] [{ ST SPM ST [{ ST
OBX ST [{ PRT ST }] }] ST [{ SAC ST }] [{ ST ORC ST [{ PRT ST }] OBR ST [{ PRT
ST }] }] ST [{ ST TQ1 ST [{ TQ2 ST }] }] ST }] ST } ST ] ST EOM;

/* ORA - Observation Report Acknowledgement */
OPU_R25 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [ NTE ST ] PV1 ST [ PV2 ST ] [{
PRT ST }] [{ ST OBX ST [{ NTE ST }] [{ PRT ST }] }] ST { ST { NK1 ST } [ ST
PID ST [ PD1 ST ] [{ PRT ST }] [{ ARV ST }] [{ ST OBX ST [{ PRT ST }] [{ NTE
ST }] }] ST ] ST { ST SPM ST [{ ST OBX ST [{ PRT ST }] [{ NTE ST }] }] ST [{
ST SAC ST [ INV ST ] }] ST { ST OBR ST [{ PRT ST }] [ ST ORC ST [{ PRT ST }] ]
ST [{ NTE ST }] [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST { ST OBX ST [{
PRT ST }] [{ NTE ST }] } ST } ST } ST EOM;

/* Observation Report Alert Acknowledgement */
ORA_R33 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [{ ERR ST }] [ ORC ST ]
EOM;

/* ORB - Blood product order acknowledgment */
ORA_R41 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [{ ERR ST }] [{ PRT ST }]
EOM;

/* ORD - Diet order acknowledgment */
ORB_O28 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ PRT ST }] [{ ARV ST }] [{ ST ORC ST [{ PRT ST }] [{ ST TQ1
ST [{ TQ2 ST }] }] ST [ BPO ST ] }] ST ] ST ] ST EOM;

/* ORG/ORL - General clinical order response */

```

Appendix C: BNF Message Descriptions

```
ORD_O04 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] ] ST { ST ORC ST [{
PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [{ ODS ST }] [{ NTE ST }] } ST [{ ST
ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [{ ODT ST }] [{ NTE ST }]
}] ST ] ST EOM;
```

```
/* ORI - Imaging order response message to any OMI */
ORG_O20 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ NTE ST }] [{ PRT ST }] [{ ARV ST }] ] ST { ST ORC ST [{
PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST OBR ST ] ST [{ PRT ST }] [{ NTE
ST }] [{ CTI ST }] [{ ST SPM ST [{ SAC ST }] }] ST } ST ] ST EOM;
```

```
/* ORL - General laboratory order response message to any OML */
ORI_O24 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ ARV ST }] [{ NTE ST }] [{ PRT ST }] ] ST { ST ORC ST [{
PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST OBR ST [{ NTE ST }] [{ PRT ST }] {
IPC ST } } ST ] ST EOM;
```

```
/* ORL - Laboratory order response message to a multiple order related to
single sp */
ORL_O22 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST PID ST [{ PRT ST }] [{ ARV ST }] { ST ORC ST [{ PRT ST }] [{ ST TQ1 ST
[{ TQ2 ST }] }] ST [ ST OBR ST [{ PRT ST }] [{ ST SPM ST [{ SAC ST }] }] ST ]
ST } ST ] ST EOM;
```

```
/* ORL - Laboratory order response message to a single container of a
specimen OML */
ORL_O34 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST PID ST [{ PRT ST }] [{ ARV ST }] { ST SPM ST [{ ST OBX ST [{ PRT ST }] }]
ST [{ SAC ST }] [{ ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST
OBR ST [{ PRT ST }] ] ST } ST ] ST EOM;
```

```
/* Specimen Shipment Centric Laboratory Order Acknowledgment Message */
ORL_O36 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST PID ST [{ PRT ST }] [{ ARV ST }] { ST SPM ST [{ ST OBX ST [{ PRT ST }] }]
ST [{ NTE ST }] { ST SAC ST [{ ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST
}] }] ST [ ST OBR ST [{ PRT ST }] ] ST } ST } ST ] ST EOM;
```

```
/* ORN - Non-stock requisition acknowledgment */
ORL_O40 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ PRT ST }] [{ ARV ST }] [{ ST ORC ST [{ PRT ST }] [{ ST TQ1
ST [{ TQ2 ST }] }] ST [ ST OBR ST [{ PRT ST }] [{ ST SHP ST { ST PAC ST [{ ST
SPM ST [{ ST SAC ST }] ST } ST } ST ] ST } ST ] ST EOM;
```

```
/* ORP - Pharmacy/treatment order acknowledgment */
ORN_O08 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ ARV ST }] [{ NTE ST }] ] ST { ST ORC ST [{ PRT ST }] [{ ST
TQ1 ST [{ TQ2 ST }] }] ST RQD ST [ RQ1 ST ] [{ NTE ST }] } ST ] ST EOM;
```

```
/* ORS - Stock requisition acknowledgment */
```

```
ORP_O10 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ NTE ST }] ] ST { ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{
TQ2 ST }] }] ST [ ST RXO ST [{ PRT ST }] [{ NTE ST }] { RXR ST } [{ ST RXC ST
[{ NTE ST }] }] ST ] ST } ST ] ST EOM;
```

```
/* ORU - Unsolicited Report Alarm */
ORS_O06 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] ] ST { ST ORC ST [{
PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] }] ST RQD ST [ RQ1 ST ] [{ NTE ST }] } ST
] ST EOM;
```

```
/* ORU - Unsolicited Pre-Ordered Point-Of-Care Observation */
ORU_R01 := SOM MSH ST [{ SFT ST }] [ UAC ST ] { ST [ ST PID ST [ PD1 ST ] [{
PRT ST }] [{ NTE ST }] [{ NK1 ST }] [{ ARV ST }] [{ ST OBX ST [{ PRT ST }] }]
ST [ ST PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST ] ST { ST [ ST ORC ST [{ PRT ST }]
[ ST OBX ST [{ PRT ST }] TXA ST ] ST ] ST OBR ST [{ NTE ST }] [{ PRT ST }] [{
ST TQ1 ST [{ TQ2 ST }] }] ST [ CTD ST ] [{ ST OBX ST [{ PRT ST }] [{ NTE ST }]
}] ST [{ FT1 ST }] [{ CTI ST }] [{ ST SPM ST [{ ST OBX ST [{ PRT ST }] }] ST
}] ST } ST } ST [ DSC ST ] EOM;
```

```
/* General Order Message with Document Payload Acknowledgement Message */
ORU_R30 := SOM MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [{ SFT ST }] [
UAC ST ] [ UAC ST ] [ UAC ST ] PID ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [
PD1 ST ] [{ PRT ST }] [{ PRT ST }] [{ PRT ST }] [{ ARV ST }] [{ ARV ST }] [{
ARV ST }] [{ ST [{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT ST }] [{ PRT ST }] [{
PRT ST }] }] ST ]] ST ]] ST [ ST [ ST [ ST PV1 ST PV1 ST PV1 ST [ PV2 ST ] [
PV2 ST ] [ PV2 ST ] [{ PRT ST }] [{ PRT ST }] [{ PRT ST }] ] ST ] ST ] ST ORC
ST ORC ST ORC ST [{ PRT ST }] [{ PRT ST }] [{ PRT ST }] OBR ST OBR ST OBR ST
[{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ PRT ST }] [{ PRT ST }] [{ PRT ST }]
[{ ST [{ ST [{ ST TQ1 ST TQ1 ST TQ1 ST [{ TQ2 ST }] [{ TQ2 ST }] [{ TQ2 ST }]
}] ST ]] ST ]] ST { ST { ST { ST OBX ST OBX ST OBX ST [{ PRT ST }] [{ PRT ST
}] [{ PRT ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] } ST } ST } ST EOM;
```

```
/* OSM - Unsolicited Specimen Shipment Manifest Message */
ORX_O43 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ ST [ ST PID ST [{ NTE ST }] [{ PRT ST }] [{ ARV ST }] ] ST { ST ORC ST [{
PRT ST }] TXA ST [{ CTI ST }] } ST ] ST EOM;
```

```
/* DBC - Create Donor Record Message */
OSM_R26 := SOM MSH ST [{ SFT ST }] [ UAC ST ] { ST SHP ST { PRT ST } [{ ST OBX
ST [{ PRT ST }] }] ST { ST PAC ST [{ PRT ST }] [{ ST SPM ST [{ PRT ST }] [{ ST
OBX ST [{ PRT ST }] }] ST [{ ST SAC ST [{ ST OBX ST [{ PRT ST }] }] ST ]] ST [
ST PID ST [{ PRT ST }] [{ ARV ST }] [{ ST OBX ST [{ PRT ST }] }] ST [{ NK1 ST
}] ] ST [ ST PV1 ST [{ PRT ST }] [{ ST OBX ST [{ PRT ST }] }] ST [ PID ST ] [{
PRT ST }] [{ NK1 ST }] ] ST ]] ST } ST } ST EOM;
```

```
/* OUL - Unsolicited Specimen Oriented Observation Message */
OSU_O41 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] [{ NTE ST }]
[ PID ST ] [{ ARV ST }] { ST ORC ST [{ PRT ST }] } ST EOM;
```

```
/* OUL - Unsolicited Specimen Container Oriented Observation Message */
```

```

/* OUL - Unsolicited Order Oriented Observation Message */
OUL_R23 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [ NTE ST ] [ ST PID ST [ PD1 ST
] [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] [{ ST OBX ST [{ PRT ST }] }] ST [ ST
PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST ] ST [{ NK1 ST }] { ST SPM ST [{ ST OBX ST
[{ PRT ST }] }] ST { ST SAC ST [ INV ST ] { ST OBR ST [{ PRT ST }] [ ST ORC ST
[{ PRT ST }] [ ST OBX ST [{ PRT ST }] TXA ST ] ST [ ST NTE ST }] [{ PRT ST
}] [{ ST TQ1 ST [{ TQ2 ST }] }] ST [{ ST OBX ST [{ PRT ST }] [ TCD ST ] [{ SID
ST }] [{ NTE ST }] ] ST [{ CTI ST }] ST ] ST ] ST [ DSC ST ] EOM;

```

```

/* PEX - Unsolicited update individual product experience report */
OUL_R24 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [ NTE ST ] [ ST PID ST [ PD1 ST
] [{ PRT ST }] [{ ARV ST }] [{ NTE ST }] [{ ST OBX ST [{ PRT ST }] }] ST [ ST
PV1 ST [ PV2 ST ] [{ PRT ST }] ] ST ] ST [{ NK1 ST }] { ST OBR ST [{ PRT ST }]
[ ST ORC ST [{ PRT ST }] [ ST OBX ST [{ PRT ST }] TXA ST ] ST ] ST [{ NTE ST
}] [{ PRT ST }] [{ ST TQ1 ST [ TQ2 ST ] }] ST [{ ST SPM ST [ ST OBX ST [
PRT ST ] ] ] ST [ ST SAC ST [ INV ST ] ] ST ] ST [ ST OBX ST [{ PRT ST }]
[ TCD ST ] [{ SID ST }] [ NTE ST ] ] ST [{ CTI ST ] } ST [ DSC ST ] EOM;

```

```

/* PGL - PC/ goal update */
PEX_P07 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EVN_ST EVN ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [{ PRT ST }] [{ PRT ST }] [{
ARV ST }] [{ ARV ST }] [{ NTE ST }] [{ NTE ST }] [ ST [ ST PV1 ST PV1 ST [ PV2
ST ] [ PV2 ST ] [{ PRT ST }] [{ PRT ST }] ] ST ] ST { ST { ST PES ST PES ST {
ST { ST PEO ST PEO ST { ST { ST PCR ST PCR ST [ ST [ ST RXE ST RXE ST [{ PRT
ST }] [{ PRT ST }] } ST { ST TQ1 ST TQ1 ST [{ TQ2 ST }] [{ TQ2 ST }] } ST } ST
[{ RXR ST }] [{ RXR ST }] } ST ] ST [{ ST RXA ST RXA ST [ RXR ST ] [ RXR
ST ] [{ PRT ST }] [{ PRT ST }] }} ST ]] ST [{ PRB ST }] [{ PRB ST }] [{ ST [{
ST OBX ST OBX ST [{ PRT ST }] [{ PRT ST }] }} ST ]] ST [{ NTE ST }] [{ NTE ST
}}] [ ST [ ST NK1 ST NK1 ST [ ST [ ST RXE ST RXE ST [{ PRT ST }] [{ PRT ST }] }
ST { ST TQ1 ST TQ1 ST [{ TQ2 ST }] [{ TQ2 ST }] } ST } ST [{ RXR ST }] [{ RXR
ST }] ] ST ] ST [{ ST [{ ST RXA ST RXA ST [ RXR ST ] [ RXR ST ] [{ PRT ST }]
[{ PRT ST }] } ST ]] ST [{ PRB ST }] [{ PRB ST }] [{ ST [{ ST OBX ST OBX ST
[{ PRT ST }] [{ PRT ST }] }} ST ]] ST ] ST ] ST [{ ST [{ ST CSR ST CSR ST [{
CSP ST }] [{ CSP ST }] }} ST ]] ST ]] ST ]] ST ]] ST ]] ST ]] ST EOM;

```

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```

}} ST }} ST [{ ST [{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT ST }} [{ PRT ST }}
[{ PRT ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} }} ST }} ST }} ST }}
ST }} ST [{ ST [{ ST [{ ST ORC ST ORC ST ORC ST [ ST [ ST [ ST < ST < ST < ST
OBR ST OBR ST OBR ST | ST | ST | ST Hxx ST Hxx ST Hxx ST > ST > ST > ST [{ NTE
ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} [{ ST
[{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT ST }} [{ PRT ST }} [{ PRT ST }} [{ NTE
ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} }} ST
}} ST }} ST ] ST ] ST ] ST }} ST }} ST }} ST } ST } ST } ST } EOM;

```

```

/* PMU/ACK - Delete personnel re cord */
PMU_B01 := SOM MSH ST MSH ST [{ SFT ST }} [{ SFT ST }} [ UAC ST ] [ UAC ST ]
EVN ST EVN ST STF ST STF ST [{ PRA ST }} [{ PRA ST }} [{ ORG ST }} [{ ORG ST
}} [{ AFF ST }} [{ AFF ST }} [{ LAN ST }} [{ LAN ST }} [{ EDU ST }} [{ EDU ST
}} [{ CER ST }} [{ CER ST }} [{ NK1 ST }} [{ NK1 ST }} [{ PRT ST }} [{ PRT ST
}} [{ ROL ST }} [{ ROL ST }} EOM;

```

```

/* PMU/ACK - Terminate practicing person */
PMU_B03 := SOM MSH ST [{ SFT ST }} [ UAC ST ] EVN ST STF ST EOM;

```

```

/* PMU/ACK - Grant Certificate/Permission */
PMU_B04 := SOM MSH ST MSH ST MSH ST [{ SFT ST }} [{ SFT ST }} [{ SFT ST }} [
UAC ST ] [ UAC ST ] [ UAC ST ] EVN ST EVN ST EVN ST STF ST STF ST STF ST [{
PRA ST }} [{ PRA ST }} [{ PRA ST }} [{ ORG ST }} [{ ORG ST }} [{ ORG ST }}
EOM;

```

```

/* PMU/ACK - Revoke Certificate/Permission */
PMU_B07 := SOM MSH ST [{ SFT ST }} [ UAC ST ] EVN ST STF ST [ PRA ST ] [{ ST
CER ST [{ PRT ST }} [{ ROL ST }} }} ST EOM;

```

```

/* PPG - PC/ pathway (goal-oriented) delete */
PMU_B08 := SOM MSH ST [{ SFT ST }} [ UAC ST ] EVN ST STF ST [ PRA ST ] [{ CER
ST }} EOM;

```

```

/* PPP - PC/ pathway (problem-oriented) delete */
PPG_PCG := SOM MSH ST MSH ST MSH ST [{ SFT ST }} [{ SFT ST }} [{ SFT ST }} [
UAC ST ] [ UAC ST ] [ UAC ST ] PID ST PID ST PID ST [ ST [ ST [ ST PV1 ST PV1
ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ PV2 ST ] ] ST ] ST ] ST { ST { ST { ST PTH
ST PTH ST PTH ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST
}} [{ VAR ST }} [{ ST [{ ST [{ ST ROL ST ROL ST ROL ST [{ VAR ST }} [{ VAR ST
}} [{ VAR ST }} ] ST ] ST ] ST [{ ST [{ ST [{ ST GOL ST GOL ST GOL ST [{
NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} [{
ST [{ ST [{ ST ROL ST ROL ST ROL ST [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} ]
ST }} ST }} ST [{ ST [{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT ST }} [{ PRT ST
}} [{ PRT ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} }} ST }} ST }} ST [{ ST
[{ ST [{ ST PRB ST PRB ST PRB ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR
ST }} [{ VAR ST }} [{ VAR ST }} [{ ST [{ ST [{ ST ROL ST ROL ST ROL ST [{ VAR
ST }} [{ VAR ST }} [{ VAR ST }} ] ST ] ST ] ST [{ ST [{ ST [{ ST OBX ST OBX
ST OBX ST [{ PRT ST }} [{ PRT ST }} [{ PRT ST }} [{ NTE ST }} [{ NTE ST }} [{
NTE ST }} ] ST ] ST ] ST ] ST ] ST [{ ST [{ ST [{ ST ORC ST ORC ST ORC ST
ORC ST [ ST [ ST [ ST < ST < ST < ST OBR ST OBR ST OBR ST | ST | ST | ST Hxx
ST Hxx ST Hxx ST > ST > ST > ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR
ST }} [{ VAR ST }} [{ VAR ST }} [{ ST [{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT
ST }} [{ PRT ST }} [{ PRT ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR

```

Appendix C: BNF Message Descriptions

```
ST }} [{ VAR ST }} [{ VAR ST }} }} ST }} ST }} ST ] ST ] ST ] ST }} ST }} ST
}} ST }} ST }} ST }} ST } ST } ST } ST } EOM;
```

```
/* PPR - PC/ problem add */
PPP_PCB := SOM MSH ST MSH ST MSH ST [{ SFT ST }} [{ SFT ST }} [{ SFT ST }} [
UAC_ST ] [ UAC ST ] [ UAC ST ] PID ST PID ST PID ST [ ST [ ST [ ST PV1 ST PV1
ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ PV2 ST ] ] ST ] ST ] ST { ST { ST { ST PTH
ST PTH ST PTH ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST
}} [{ VAR ST }} [{ ST [{ ST [{ ST ROL ST ROL ST ROL ST [{ VAR ST }} [{ VAR ST
}} [{ VAR ST }} }} ST }} ST }} ST [{ ST [{ ST [{ ST PRB ST PRB ST PRB ST [{
NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} [{
ST [{ ST [{ ST ROL ST ROL ST ROL ST [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} }}
ST }} ST }} ST [{ ST [{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT ST }} [{ PRT ST
}} [{ PRT ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} }} ST }} ST }} ST [{ ST
[{ ST [{ ST GOL ST GOL ST GOL ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR
ST }} [{ VAR ST }} [{ VAR ST }} [{ ST [{ ST [{ ST ROL ST ROL ST ROL ST [{ VAR
ST }} [{ VAR ST }} [{ VAR ST }} }} ST }} ST }} ST [{ ST [{ ST [{ ST OBX ST OBX
ST OBX ST [{ PRT ST }} [{ PRT ST }} [{ PRT ST }} [{ NTE ST }} [{ NTE ST }} [{
NTE ST }} }} ST }} ST }} ST }} ST }} ST }} ST }} ST }} ST }} ST }} ST }} ST
ORC ST [ ST [ ST [ ST < ST < ST < ST OBR ST OBR ST OBR ST | ST | ST | ST Hxx
ST Hxx ST Hxx ST > ST > ST > ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR
ST }} [{ VAR ST }} [{ VAR ST }} [{ ST [{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT
ST }} [{ PRT ST }} [{ PRT ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR
ST }} [{ VAR ST }} [{ VAR ST }} }} ST }} ST }} ST ] ST ] ST ] ST ] ST }} ST }} ST
}} ST }} ST }} ST }} ST } ST } ST } ST } EOM;
```

```
/* HealthCare Services Invoice Status */
PPR_PC1 := SOM MSH ST MSH ST MSH ST [{ SFT ST }} [{ SFT ST }} [{ SFT ST }} [
UAC_ST ] [ UAC ST ] [ UAC ST ] PID ST PID ST PID ST [ ST [ ST [ ST PV1 ST PV1
ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ PV2 ST ] ] ST ] ST ] ST { ST { ST { ST PRB
ST PRB ST PRB ST [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST
}} [{ VAR ST }} [{ ST [{ ST [{ ST ROL ST ROL ST ROL ST [{ VAR ST }} [{ VAR ST
}} [{ VAR ST }} }} ST }} ST }} ST [{ ST [{ ST [{ ST PTH ST PTH ST PTH ST [{
VAR ST }} [{ VAR ST }} [{ VAR ST }} }} ST }} ST }} ST [{ ST [{ ST [{ ST OBX ST
OBX ST OBX ST [{ PRT ST }} [{ PRT ST }} [{ PRT ST }} [{ NTE ST }} [{ NTE ST }}
[{ NTE ST }} }} ST }} ST }} ST }} ST [{ ST [{ ST [{ ST GOL ST GOL ST GOL ST [{ NTE
ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} [{ ST
[{ ST [{ ST ROL ST ROL ST ROL ST [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} }} ST
}} ST }} ST [{ ST [{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT ST }} [{ PRT ST }}
[{ PRT ST }} [{ NTE ST }} [{ NTE ST }} [{ NTE ST }} }} ST }} ST }} ST }} ST }}
ST }} ST }} ST [{ ST [{ ST [{ ST ORC ST ORC ST ORC ST [ ST [ ST [ ST < ST < ST < ST
OBR ST OBR ST OBR ST | ST | ST | ST Hxx ST Hxx ST Hxx ST > ST > ST > ST [{ NTE
ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} [{ ST
[{ ST [{ ST OBX ST OBX ST OBX ST [{ PRT ST }} [{ PRT ST }} [{ PRT ST }} [{ NTE
ST }} [{ NTE ST }} [{ NTE ST }} [{ VAR ST }} [{ VAR ST }} [{ VAR ST }} }} ST
}} ST }} ST ] ST ] ST ] ST ] ST }} ST }} ST }} ST }} ST } ST } ST } ST } EOM;
```

```
/* Authorization Request Status */
QBP_E03 := SOM MSH ST [{ SFT ST }} [{ UAC ST }} < ST QPD ST RCP ST > ST EOM;
```

```
/* QBP - Get Donor Record Candidates */
QBP_E22 := SOM MSH ST [{ SFT ST }} [{ UAC ST }} < ST QPD ST RCP ST > ST EOM;
```

```
/* QBP - Get Donor Record */
```



```
QBP_O33 := SOM MSH ST [{ SFT ST }] [ UAC ST ] QPD ST RCP ST EOM;
```

```
/* QBP Query Dispense history */
QBP_O34 := SOM MSH ST [{ SFT ST }] [ UAC ST ] QPD ST RCP ST EOM;
```

```
/* */
QBP_Q11 := SOM MSH ST MSH ST MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [{
SFT ST }] [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST
] [ UAC ST ] QPD ST QPD ST QPD ST QPD ST QPD ST [ ST [ ST [ ST [ ST [ ST [ Hxx
ST ] [ Hxx ST ] [ Hxx ST ] [ Hxx ST ] [ Hxx ST ] ] ST ] ST ] ST ] ST ] ST RCP
ST RCP ST RCP ST RCP ST RCP ST [ DSC ST ] [ DSC ST ] [ DSC ST ] [ DSC ST ] [
DSC ST ] EOM;
```

```
/* QBP - Query by parameter requesting an RDY display response */
QBP_Q13 := SOM MSH ST [{ SFT ST }] [ UAC ST ] QPD ST [ PID ST ] [ RDF ST ] RCP
ST [ RDF ST ] [ DSC ST ] EOM;
```

```
/* QBP - Find candidates */
QBP_Q15 := SOM MSH ST [{ SFT ST }] [ UAC ST ] QPD ST [ Hxx ST ] RCP ST [ DSC
ST ] EOM;
```

```
/* */
QBP_Q21 := SOM MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT
ST }] [{ SFT ST }] [{ SFT ST }] [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST
] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] QPD ST QPD ST QPD ST QPD ST QPD
ST QPD ST RCP ST RCP ST RCP ST RCP ST RCP ST RCP ST RCP ST [ DSC ST ] [ DSC ST ] [
DSC ST ] [ DSC ST ] [ DSC ST ] [ DSC ST ] EOM;
```

```
/* QSX/ACK - Cancel subscription/acknowledge message */
QBP_Z73 := SOM MSH ST [{ SFT ST }] [ UAC ST ] QPD ST RCP ST EOM;
```

```
/* QSB - Create subscription */
QCN_J01 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
QID ST QID ST EOM;
```

```
/* QVR - Query for previous events */
QSB_Q16 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
QPD ST QPD ST RCP ST RCP ST [ DSC ST ] [ DSC ST ] EOM;
```

```
/* RAS - Pharmacy/treatment administration */
QVR_Q17 := SOM MSH ST [{ SFT ST }] [ UAC ST ] QPD ST [ ST [ Hxx ST ] ] ST RCP
ST [ DSC ST ] EOM;
```

```
/* RDE - Pharmacy/treatment encoded order */
RAS_O17 := SOM MSH ST [{ SFT ST }] [ UAC ST ] [{ NTE ST }] [ ST PID ST [ ST
PD1 ST [{ PRT ST }] ] ST [{ NTE ST }] [{ ARV ST }] [{ AL1 ST }] [ ST PV1 ST [
PV2 ST ] [{ PRT ST }] [{ ARV ST }] ] ST ] ST { ST ORC ST [{ PRT ST }] [{ ST
TQ1 ST [{ TQ2 ST }] ] ST [ ST RXO ST [ ST { NTE ST } { RXR ST } [{ ST RXC ST
```

Appendix C: BNF Message Descriptions

```
{ { NTE ST } } } ST ] ST ] ST [ ST RXE ST [ { PRT ST } ] [ { NTE ST } ] { ST TQ1 ST
[ { TQ2 ST } ] } ST { RXR ST } [ { RXC ST } ] [ { CDO ST } ] ] ST { ST { RXA ST } [ {
PRT ST } ] RXR ST [ { ST OBX ST [ { PRT ST } ] [ { NTE ST } ] } } ST } ST [ { CTI ST
} ] } ST EOM;
```

```
/* */
RDE_O11 := SOM MSH ST MSH ST [ { SFT ST } ] [ { SFT ST } ] [ UAC ST ] [ UAC ST ]
[ { NTE ST } ] [ { NTE ST } ] [ ST [ ST PID ST PID ST [ PD1 ST ] [ PD1 ST ] [ { PRT
ST } ] [ { PRT ST } ] [ { NTE ST } ] [ { NTE ST } ] [ { ARV ST } ] [ { ARV ST } ] [ ST [
ST PV1 ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ { PRT ST } ] [ { PRT ST } ] [ { ARV ST } ]
[ { ARV ST } ] ] ST ] ST [ { ST IN1 ST IN1 ST [ IN2 ST ] [ IN2 ST ] [ IN3
ST ] [ IN3 ST ] } } ST ] ST [ GT1 ST ] [ GT1 ST ] [ { AL1 ST } ] [ { AL1 ST } ] ]
ST ] ST { ST { ST ORC ST ORC ST [ { PRT ST } ] [ { PRT ST } ] [ { ST [ { ST TQ1 ST
TQ1 ST [ { TQ2 ST } ] [ { TQ2 ST } ] } } ST } ] ST [ ST [ ST RXO ST RXO ST [ { PRT ST
} ] [ { PRT ST } ] [ { NTE ST } ] [ { NTE ST } ] { RXR ST } { RXR ST } [ { ST [ { ST
RXC ST RXC ST [ { NTE ST } ] [ { NTE ST } ] } } ST } ] ST ] ST RXE ST RXE ST [ {
PRT ST } ] [ { PRT ST } ] [ { NTE ST } ] [ { NTE ST } ] { ST { ST TQ1 ST TQ1 ST [ {
TQ2 ST } ] [ { TQ2 ST } ] } ST } ST [ { ST [ { ST RXV ST RXV ST [ { PRT ST } ] [ { PRT
ST } ] [ { NTE ST } ] [ { NTE ST } ] { ST { ST TQ1 ST TQ1 ST [ { TQ2 ST } ] [ { TQ2 ST
} ] } ST } ST ] ST ] ST { RXR ST } { RXR ST } [ { RXC ST } ] [ { RXC ST } ] [ {
CDO ST } ] [ { CDO ST } ] [ { ST [ { ST OBX ST OBX ST [ { PRT ST } ] [ { PRT ST } ] [ {
NTE ST } ] [ { NTE ST } ] } } ST } ] ST [ { FT1 ST } ] [ { FT1 ST } ] [ BLG ST ] [ BLG
ST ] [ { CTI ST } ] [ { CTI ST } ] } ST } ST EOM;
```

```
/* RDS - Pharmacy/treatment dispense */
RDR_RDR := SOM MSH ST MSA ST [ { ERR ST } ] [ SFT ST ] [ UAC ST ] { ST QRD ST [
QRF ST ] [ ST PID ST [ { NTE ST } ] ] ST { ST ORC ST [ { ST TQ1 ST [ { TQ2 ST } ]
} ] ST [ ST RXE ST [ { ST TQ1 ST [ { TQ2 ST } ] } ] ST { RXR ST } [ { RXC ST } ] ] ST
{ ST RXD ST { RXR ST } [ { RXC ST } ] } ST } ST } ST [ DSC ST ] EOM;
```

```
/* */
RDS_O13 := SOM MSH ST [ { SFT ST } ] [ UAC ST ] [ { NTE ST } ] [ ST PID ST [ ST
PD1 ST [ { PRT ST } ] [ { ARV ST } ] ] ST [ { NTE ST } ] [ { AL1 ST } ] [ ST PV1 ST [
PV2 ST ] [ { PRT ST } ] [ { ARV ST } ] ] ST ] ST { ST ORC ST [ { PRT ST } ] [ { ST
TQ1 ST [ { TQ2 ST } ] } ] ST [ ST RXO ST [ { PRT ST } ] [ ST { NTE ST } { RXR ST }
[ { ST RXC ST [ { NTE ST } ] } ] ST ] ST ] ST [ ST RXE ST [ { PRT ST } ] [ { NTE ST
} ] { ST TQ1 ST [ { TQ2 ST } ] } ST { RXR ST } [ { RXC ST } ] ] ST RXD ST [ { PRT ST
} ] [ { NTE ST } ] { RXR ST } [ { RXC ST } ] [ { CDO ST } ] [ { ST OBX ST [ { PRT ST } ]
[ { NTE ST } ] } ] ST [ { FT1 ST } ] } ST EOM;
```

```
/* */
RDY_K15 := SOM MSH ST MSH ST [ { SFT ST } ] [ { SFT ST } ] [ UAC ST ] [ UAC ST ]
MSA ST MSA ST [ ERR ST ] [ ERR ST ] QAK ST QAK ST QPD ST QPD ST [ { DSP ST } ]
[ { DSP ST } ] [ DSC ST ] [ DSC ST ] EOM;
```

```
/* REF/RRI - Patient referral */
RDY_Z80 := SOM MSH ST [ { SFT ST } ] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST
[ { DSP ST } ] [ DSC ST ] EOM;
```

```
/* RGV - Pharmacy/treatment give */
REF_I12 := SOM MSH ST MSH ST MSH ST MSH ST [ { SFT ST } ] [ { SFT ST } ] [ { SFT ST
} ] [ { SFT ST } ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ RF1 ST ] [ RF1
ST ] [ RF1 ST ] [ RF1 ST ] [ ST [ ST [ ST [ ST AUT ST AUT ST AUT ST AUT ST [
```

```
CTD ST ] [ CTD ST ] [ CTD ST ] [ CTD ST ] ] ST ] ST ] ST ] ST { ST { ST { ST {
ST PRD ST PRD ST PRD ST PRD ST [ { CTD ST } ] [ { CTD ST } ] [ { CTD ST } ] [ { CTD
ST } ] } ST } ST } ST } ST PID ST PID ST PID ST PID ST [ { NK1 ST } ] [ { NK1 ST
} ] [ { NK1 ST } ] [ { NK1 ST } ] [ { GT1 ST } ] [ { GT1 ST } ] [ { GT1 ST } ] [ { GT1 ST
} ] [ { ST [ { ST [ { ST [ { ST IN1 ST IN1 ST IN1 ST IN1 ST [ IN2 ST ] [ IN2 ST ] [
IN2 ST ] [ IN2 ST ] [ IN3 ST ] [ IN3 ST ] [ IN3 ST ] [ IN3 ST ] } } ST } ] ST } ]
ST } ] ST [ ACC ST ] [ ACC ST ] [ ACC ST ] [ ACC ST ] [ { DG1 ST } ] [ { DG1 ST } ]
[ { DG1 ST } ] [ { DG1 ST } ] [ { DRG ST } ] [ { DRG ST } ] [ { DRG ST } ] [ { DRG ST } ]
[ { AL1 ST } ] [ { AL1 ST } ] [ { AL1 ST } ] [ { AL1 ST } ] [ { ST [ { ST [ { ST [ { ST
PR1 ST PR1 ST PR1 ST PR1 ST [ ST [ ST [ ST [ ST AUT ST AUT ST AUT ST AUT ST [
CTD ST ] [ CTD ST ] [ CTD ST ] [ CTD ST ] ] ST ] ST ] ST ] ST } ] ST } ] ST } ]
ST } ] ST [ { ST [ { ST [ { ST [ { ST OBR ST OBR ST OBR ST OBR ST [ { NTE ST } ] [ {
NTE ST } ] [ { NTE ST } ] [ { NTE ST } ] [ { ST [ { ST [ { ST [ { ST OBX ST OBX ST OBX
ST OBX ST [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST } ] [ { NTE ST } ] [ {
NTE ST } ] [ { NTE ST } ] [ { NTE ST } ] } ] ST } ] ST } ] ST } ] ST } ] ST } ] ST
} ] ST [ ST [ ST [ ST [ ST PV1 ST PV1 ST PV1 ST PV1 ST [ PV2 ST ] [ PV2 ST ] [
PV2 ST ] [ PV2 ST ] ] ST ] ST ] ST ] ST [ { NTE ST } ] [ { NTE ST } ] [ { NTE ST } ]
[ { NTE ST } ] EOM;
```

```
/* RQA/RPA - Request for modification to an authorization */
RGV_015 := SOM MSH ST [ { SFT ST } ] [ UAC ST ] [ { NTE ST } ] [ ST PID ST [ { NTE
ST } ] [ { AL1 ST } ] [ { ARV ST } ] [ ST PV1 ST [ PV2 ST ] [ { PRT ST } ] [ { ARV ST
} ] ] ST ] ST { ST ORC ST [ { PRT ST } ] [ { ST TQ1 ST [ { TQ2 ST } ] } ] ST [ ST RXO
ST [ { PRT ST } ] [ ST { NTE ST } { RXR ST } [ { ST RXC ST [ { NTE ST } ] } ] ST ]
ST ] ST [ ST RXE ST [ { PRT ST } ] [ { NTE ST } ] { ST TQ1 ST [ { TQ2 ST } ] } ST {
RXR ST } [ { RXC ST } ] ] ST { ST RXG ST { ST TQ1 ST [ { TQ2 ST } ] } ST { RXR ST
} [ { RXC ST } ] [ { CDO ST } ] [ { ST OBX ST [ { PRT ST } ] [ { NTE ST } ] } ] ST } ST
} ST EOM;
```

```
/* RQI/RPI - Request for insurance information */
RQA_I08 := SOM MSH ST MSH ST MSH ST MSH ST [ { SFT ST } ] [ { SFT ST } ] [ { SFT ST
} ] [ { SFT ST } ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ RF1 ST ] [ RF1
ST ] [ RF1 ST ] [ RF1 ST ] [ ST [ ST [ ST [ ST AUT ST AUT ST AUT ST AUT ST [
CTD ST ] [ CTD ST ] [ CTD ST ] [ CTD ST ] ] ST ] ST ] ST ] ST { ST { ST { ST {
ST PRD ST PRD ST PRD ST PRD ST [ { CTD ST } ] [ { CTD ST } ] [ { CTD ST } ] [ { CTD
ST } ] } ST } ST } ST } ST PID ST PID ST PID ST PID ST [ { NK1 ST } ] [ { NK1 ST
} ] [ { NK1 ST } ] [ { NK1 ST } ] [ ST [ ST [ ST [ ST [ { GT1 ST } ] [ { GT1 ST } ] [ {
GT1 ST } ] [ { GT1 ST } ] { ST { ST { ST { ST IN1 ST IN1 ST IN1 ST IN1 ST [ IN2
ST ] [ IN2 ST ] [ IN2 ST ] [ IN2 ST ] [ IN3 ST ] [ IN3 ST ] [ IN3 ST ] [ IN3
ST ] } ST } ST } ST } ST ] ST ] ST ] ST ] ST [ ACC ST ] [ ACC ST ] [ ACC ST ]
[ ACC ST ] [ { DG1 ST } ] [ { DG1 ST } ] [ { DG1 ST } ] [ { DG1 ST } ] [ { DRG ST } ] [ {
DRG ST } ] [ { DRG ST } ] [ { DRG ST } ] [ { AL1 ST } ] [ { AL1 ST } ] [ { AL1 ST } ] [ {
AL1 ST } ] [ { ST [ { ST [ { ST [ { ST PR1 ST PR1 ST PR1 ST PR1 ST [ ST [ ST [ ST [
ST AUT ST AUT ST AUT ST AUT ST [ CTD ST ] [ CTD ST ] [ CTD ST ] [ CTD ST ] ]
ST ] ST ] ST ] ST } ] ST } ] ST } ] ST [ { ST [ { ST [ { ST [ { ST OBR ST OBR
ST OBR ST OBR ST [ { NTE ST } ] [ { NTE ST } ] [ { NTE ST } ] [ { NTE ST } ] [ { ST [ {
ST [ { ST [ { ST OBX ST OBX ST OBX ST OBX ST [ { PRT ST } ] [ { PRT ST } ] [ { PRT ST
} ] [ { PRT ST } ] [ { NTE ST } ] [ { NTE ST } ] [ { NTE ST } ] [ { NTE ST } ] } ] ST } ]
ST } ] ST } ] ST } ] ST } ] ST } ] ST [ ST [ ST [ ST [ ST PV1 ST PV1 ST PV1
ST PV1 ST [ PV2 ST ] [ PV2 ST ] [ PV2 ST ] [ PV2 ST ] ] ST ] ST ] ST ] ST [ {
NTE ST } ] [ { NTE ST } ] [ { NTE ST } ] [ { NTE ST } ] EOM;
```

```
/* RQD/RPI - Request for patient demographic data */
RQI_I01 := SOM MSH ST MSH ST MSH ST MSH ST [ { SFT ST } ] [ { SFT ST } ] [ { SFT ST
} ] [ { SFT ST } ] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] { ST { ST { ST {
ST PRD ST PRD ST PRD ST PRD ST [ { CTD ST } ] [ { CTD ST } ] [ { CTD ST } ] [ { CTD
ST } ] } ST } ST } ST } ST PID ST PID ST PID ST PID ST [ { NK1 ST } ] [ { NK1 ST
```

Appendix C: BNF Message Descriptions

```
}} [{{ NK1 ST }}] [{{ NK1 ST }}] [ ST [ ST [ ST [ ST [{{ GT1 ST }}] [{{ GT1 ST }}] [{{ GT1 ST }}] [{{ GT1 ST }}] { ST { ST { ST { ST IN1 ST IN1 ST IN1 ST IN1 ST [ IN2 ST ] [ IN2 ST ] [ IN2 ST ] [ IN2 ST ] [ IN3 ST ] [ IN3 ST ] [ IN3 ST ] [ IN3 ST ] } ST } ST } ST } ST ] ST ] ST ] ST ] ST [{{ NTE ST }}] [{{ NTE ST }}] [{{ NTE ST }}] [{{ NTE ST }}] EOM;
```

```
/* RRA - Pharmacy/treatment administration acknowledgment */  
RQP_I04 := SOM MSH ST [{{ SFT ST }}] [ UAC ST ] { ST PRD ST [{{ CTD ST }}] } ST  
PID ST [{{ NK1 ST }}] [{{ GT1 ST }}] [{{ NTE ST }}] EOM;
```

```
/* RRD - Pharmacy/treatment dispense acknowledgment */  
RRA_O18 := SOM MSH ST MSA ST [{{ ERR ST }}] [{{ SFT ST }}] [ UAC ST ] [{{ NTE ST }}]  
[ ST [ ST PID ST [{{ NTE ST }}] ] ST { ST ORC ST [{{ PRT ST }}] [{{ ST TQ1 ST [{{ TQ2 ST }}] }} ST [ ST { ST RXA ST [{{ PRT ST }}] } ST RXR ST ] ST } ST ] ST EOM;
```

```
/* RRE - Pharmacy/Treatment Refill Authorization Acknowledgement */  
RRD_O14 := SOM MSH ST MSA ST [{{ ERR ST }}] [{{ SFT ST }}] [ UAC ST ] [{{ NTE ST }}]  
[ ST [ ST PID ST [{{ NTE ST }}] ] ST { ST ORC ST [{{ PRT ST }}] [{{ ST TQ1 ST [{{ TQ2 ST }}] }} ST [ ST RXD ST [{{ NTE ST }}] { RXR ST } [{{ RXC ST }}] ] ST } ST ] ST EOM;
```

```
/* RRG - Pharmacy/treatment give acknowledgment */  
RRE_O12 := SOM MSH ST MSH ST MSA ST MSA ST [{{ ERR ST }}] [{{ ERR ST }}] [{{ SFT ST }}]  
[{{ SFT ST }}] [ UAC ST ] [ UAC ST ] [{{ NTE ST }}] [{{ NTE ST }}] [ ST [ ST [ ST  
[ ST PID ST PID ST [{{ NTE ST }}] [{{ NTE ST }}] ] ST ] ST { ST { ST ORC ST ORC ST  
[{{ PRT ST }}] [{{ PRT ST }}] [{{ ST [{{ ST TQ1 ST TQ1 ST [{{ TQ2 ST }}] [{{ TQ2 ST }}]  
}} ST }} ST [ ST [ ST RXE ST RXE ST [{{ PRT ST }}] [{{ PRT ST }}] [{{ NTE ST }}] [{{ NTE ST }}]  
{ ST { ST TQ1 ST TQ1 ST [{{ TQ2 ST }}] [{{ TQ2 ST }}] } ST } ST { RXR ST  
} { RXR ST } [{{ RXC ST }}] [{{ RXC ST }}] ] ST ] ST } ST } ST ] ST ] ST EOM;
```

```
/* RSP - Segment pattern response in response to QBP^Q11 */  
RRG_O16 := SOM MSH ST MSA ST [{{ ERR ST }}] [{{ SFT ST }}] [ UAC ST ] [{{ NTE ST }}]  
[ ST [ ST PID ST [{{ NTE ST }}] ] ST { ST ORC ST [{{ PRT ST }}] [{{ ST TQ1 ST [{{ TQ2 ST }}] }} ST [ ST RXG ST { ST TQ1 ST [{{ TQ2 ST }}] } ST { RXR ST } [{{ RXC ST }}] ] ST } ST ] ST EOM;
```

```
/* RSP - Get person demographics response */  
RSP_K11 := SOM MSH ST [{{ SFT ST }}] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST  
[ ST Hxx ST ] ST [ DSC ST ] EOM;
```

```
/* RSP - Find candidates response */  
RSP_K21 := SOM MSH ST [{{ SFT ST }}] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST  
[ ST PID ST [ PD1 ST ] [{{ ARV ST }}] [{{ NK1 ST }}] QRI ST ] ST [ DSC ST ] EOM;
```

```
/* RSP - Get corresponding identifiers response */  
RSP_K22 := SOM MSH ST [{{ SFT ST }}] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST  
[ ST PID ST [ PD1 ST ] [{{ NK1 ST }}] [ QRI ST ] ] ST [ DSC ST ] EOM;
```

```
/* RSP - Personnel Information by Segment Response */
```

```
RSP_K23 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
MSA ST MSA ST [ ERR ST ] [ ERR ST ] QAK ST QAK ST QPD ST QPD ST [ ST [ ST PID
ST PID ST ] ST ] ST [ DSC ST ] [ DSC ST ] EOM;
```

```
/* RSP -Dispense History Response */
RSP_K25 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [{ ERR ST }] QAK ST QPD
ST RCP ST { ST STF ST [{ PRA ST }] [{ ORG ST }] [{ AFF ST }] [{ LAN ST }] [{
EDU ST }] [{ CER ST }] [{ NK1 ST }] [{ PRT ST }] [{ ROL ST }] } ST [ DSC ST ]
EOM;
```

```
/* Find Candidates including Visit Information Response */
RSP_K31 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] QAK ST QPD
ST RCP ST { ST [ ST PID ST [ ST PD1 ST [{ PRT ST }] ] ST [{ NTE ST }] [{ ARV
ST }] [{ AL1 ST }] [ ST PV1 ST [ PV2 ST ] [{ PRT ST }] [{ ARV ST }] ] ST ] ST
{ ST ORC ST [{ PRT ST }] [{ ST TQ1 ST [{ TQ2 ST }] ] ST [ ST RXO ST [{ NTE ST
}] { RXR ST } [ ST RXC ST [{ NTE ST }] ] ST ] ST [ ST RXE ST [{ PRT ST }] [{
NTE ST }] { ST TQ1 ST [{ TQ2 ST }] } ST { RXR ST } [{ RXC ST }] ] ST RXD ST [{
PRT ST }] { RXR ST } [{ RXC ST }] [{ CDO ST }] [{ ST OBX ST [{ PRT ST }] [{
NTE ST }] ] ] ST } ST } ST [ DSC ST ] EOM;
```

```
/* Get Donor Record Candidates Response Message */
RSP_K32 := SOM MSH ST [{ SFT ST }] MSA ST [ ERR ST ] QAK ST QPD ST [{ ST PID
ST [ PD1 ST ] [{ NK1 ST }] PV1 ST [ PV2 ST ] [ QRI ST ] ] ST [ DSC ST ] EOM;
```

```
/* Segment Pattern Response Message */
RSP_O33 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST
[ ST PID ST [{ ARV ST }] ] ST EOM;
```

```
/* */
RSP_O34 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST
[ ST PID ST [ PD1 ST ] [{ OBX ST }] [{ NTE ST }] [{ AL1 ST }] [{ ARV ST }] [
ST [ PV1 ST ] [{ NTE ST }] ] ST ] ST [ ST DON ST [{ OBX ST }] [{ NTE ST }] ]
ST EOM;
```

```
/* */
RSP_Z82 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST
RCP ST { ST [ ST PID ST [ PD1 ST ] [{ NTE ST }] [ ST { AL1 ST } PV1 ST [ PV2
ST ] ] ST ] ST { ST ORC ST [{ ST TQ1 ST [{ TQ2 ST }] ] ST [ ST RXO ST [{ NTE
ST }] { RXR ST } [ ST { RXC ST } [{ NTE ST }] ] ST ] ST [ ST RXE ST [{ ST TQ1
ST [{ TQ2 ST }] ] ] ST { RXR ST } [{ RXC ST }] ] ST RXD ST { RXR ST } [{ RXC ST
}] { ST [ OBX ST ] [{ NTE ST }] } ST } ST } ST [ DSC ST ] EOM;
```

```
/* */
RSP_Z84 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST
[ ST RDF ST [{ RDT ST }] ] ST [ DSC ST ] EOM;
```

```
/* */
RSP_Z86 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST
{ ST [ ST PID ST [ PD1 ST ] [{ NTE ST }] [{ AL1 ST }] ] ST { ST ORC ST [{ ST
TQ1 ST [{ TQ2 ST }] ] ] ST [ ST RXO ST { RXR ST } [{ RXC ST }] ] ST [ ST RXE ST
```

Appendix C: BNF Message Descriptions

```
[{ ST TQ1 ST [{ TQ2 ST }] }] ST { RXR ST } [{ RXC ST }] ] ST [ ST RXD ST { RXR
ST } [{ RXC ST }] ] ST [ ST RXG ST { RXR ST } [{ RXC ST }] ] ST [ ST RXA ST {
RXR ST } [{ RXC ST }] ] ST { ST [ OBX ST ] [{ NTE ST }] } ST } ST } ST [ DSC
ST ] EOM;
```

```
/* */
RSP_Z88 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST
RCP ST { ST [ ST PID ST [ PD1 ST ] [{ NTE ST }] ] ST { AL1 ST } [ ST PV1 ST [
PV2 ST ] ] ST ] ST { ST ORC ST [{ ST TQ1 ST [{ TQ2 ST }] }] ST [ ST RXO
ST [{ NTE ST }] { RXR ST } [ ST { RXC ST } [{ NTE ST }] ] ST ] ST [ ST RXE ST
[{ ST TQ1 ST [{ TQ2 ST }] }] ST { RXR ST } [{ RXC ST }] ] ST RXD ST { RXR ST }
[{ RXC ST }] { ST [ OBX ST ] [{ NTE ST }] } ST } ST } ST DSC ST EOM;
```

```
/* RTB - Tabular response in response to QBP^Q13 */
RSP_Z90 := SOM MSH ST [{ SFT ST }] [ UAC ST ] MSA ST [ ERR ST ] QAK ST QPD ST
RCP ST { ST [ ST PID ST [ PD1 ST ] [{ NK1 ST }] [{ NTE ST }] [ ST PV1 ST [ PV2
ST ] ] ST ] ST { ST ORC ST [{ ST TQ1 ST [{ TQ2 ST }] }] ST OBR ST [{ NTE ST }]
[ CTD ST ] { ST [ OBX ST ] [{ NTE ST }] } ST } ST [{ ST SPM ST [{ OBX ST }] }]
ST } ST DSC ST EOM;
```

```
/* */
RTB_K13 := SOM MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST [{ SFT ST }] [{ SFT
ST }] [{ SFT ST }] [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST
] [ UAC ST ] [ UAC ST ] [ UAC ST ] [ UAC ST ] MSA ST MSA ST MSA ST MSA ST MSA
ST MSA ST [ ERR ST ] [ ERR ST ] [ ERR ST ] [ ERR ST ] [ ERR ST ] [ ERR ST ]
QAK ST QAK ST QAK ST QAK ST QAK ST QAK ST QPD ST QPD ST QPD ST QPD ST QPD ST
QPD ST [ ST [ ST [ ST [ ST [ ST [ ST RDF ST RDF ST RDF ST RDF ST RDF ST RDF ST
[{ RDT ST }] [{ RDT ST }] [{ RDT ST }] [{ RDT ST }] [{ RDT ST }] [{ RDT ST }]
] ST ] ST ] ST ] ST ] ST [ DSC ST ] [ DSC ST ] [ DSC ST ] [ DSC ST ] [
DSC ST ] [ DSC ST ] EOM;
```

```
/* SDN/ACK - Notification of anti-microbial device data */
RTB_Z74 := SOM MSH ST MSA ST [{ ERR ST }] [{ SFT ST }] [ UAC ST ] QAK ST QPD
ST [ ST RDF ST [{ RDT ST }] ] ST [ DSC ST ] EOM;
```

```
/* SCN/ACK - Notification of anti-microbial device cycle data */
SDR_S31 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ] <
ST < ST SDD ST SDD ST [{ SCD ST }] [{ SCD ST }] > ST > ST EOM;
```

```
/* SIU/ACK - Notification of appointment discontinuation */
SDR_S32 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ] <
ST < ST SDD ST SDD ST [{ SCD ST }] [{ SCD ST }] > ST > ST EOM;
```

```
/* SLN/ACK - Notification of sterilization lot */
SIU_S12 := SOM MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST
MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST SCH ST SCH ST SCH ST SCH ST SCH ST
SCH ST SCH ST SCH ST SCH ST SCH ST SCH ST SCH ST SCH ST SCH ST [{ TQ1
ST }] [{ TQ1 ST }] [{ TQ1 ST }] [{ TQ1 ST }] [{ TQ1 ST }] [{ TQ1 ST }] [{ TQ1
ST }] [{ TQ1 ST }] [{ TQ1 ST }] [{ TQ1 ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE
ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE
ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE
ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE
ST }]
```

```
/* SSR/ACK - specimen status request */
SRM_S01 := SOM MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST MSH ST
MSH ST MSH ST ARQ ST ARQ ST ARQ ST ARQ ST ARQ ST ARQ ST ARQ ST ARQ ST ARQ ST ARQ ST
ARQ ST ARQ ST [ APR ST ] [ APR ST ] [ APR ST ] [ APR ST ] [ APR ST ] [ APR ST ]
[ APR ST ] [ APR ST ] [ APR ST ] [ APR ST ] [ APR ST ] [{ NTE ST }] [{ NTE
ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE
ST }] [{ NTE ST }] [{ NTE ST }] [{ NTE ST }] [{ ST [{ ST [{ ST [{ ST [{ ST [{
ST [{ ST [{ ST [{ ST [{ ST [{ ST PID ST PID ST PID ST PID ST PID ST PID ST PID
ST PID ST PID ST PID ST PID ST [ PV1 ST ] [ PV1 ST ] [ PV1 ST ] [ PV1 ST ] [
```

```

/* UDM/ACK - Unsolicited display update message */
TCU_U10 := SOM MSH ST MSH ST [{ SFT ST }] [{ SFT ST }] [ UAC ST ] [ UAC ST ]
EQU ST EQU ST { ST { ST [ SPM ST ] [ SPM ST ] { TCC ST } { TCC ST } } ST } ST
EOM:

```



```
/* VXU - Unsolicited vaccination record update */
UDM_Q05 := SOM MSH ST [{ SFT ST }] [ UAC ST ] URD ST [ URS ST ] { DSP ST } [
DSC ST ] EOM;
```

```
ST := <CR>;
```

C.4 SEGMENTS

```
/*-- Segments --*/
Segments :=
```

```
| ABS
| ACC
| ADD
| ADJ
| AFF
| AIG
| AIL
| AIP
| AIS
| AL1
| APR
| ARQ
| ARV
| AUT
| BHS
| BLC
| BLG
| BPO
| BPX
| BTS
| BTX
| BUI
| CDM
| CDO
| CER
| CM0
| CM1
| CM2
| CNS
| CON
| CSP
| CSR
| CSS
| CTD
| CTI
| DB1
| DG1
| DMI
| DON
| DPS
| DRG
| DSC
| DSP
| ECD
```

Appendix C: BNF Message Descriptions

	ECR
	EDU
	EQP
	EQU
	ERR
	EVN
	FAC
	FHS
	FT1
	FTS
	GOL
	GP1
	GP2
	GT1
	IAM
	IAR
	IIM
	ILT
	IN1
	IN2
	IN3
	INV
	IPC
	IPR
	ISD
	ITM
	IVC
	IVT
	LAN
	LCC
	LCH
	LDP
	LOC
	LRL
	MCP
	MFA
	MFE
	MFI
	MRG
	MSA
	MSH
	NCK
	NDS
	NK1
	NPU
	NSC
	NST
	NTE
	OBR
	OBX
	ODS
	ODT
	OM1
	OM2
	OM3
	OM4
	OM5
	OM6
	OM7
	OMC

	ORC
	ORG
	OVR
	PAC
	PCE
	PCR
	PD1
	PDA
	PDC
	PEO
	PES
	PID
	PKG
	PM1
	PMT
	PR1
	PRA
	PRB
	PRC
	PRD
	PRT
	PSG
	PSH
	PSL
	PSS
	PTH
	PV1
	PV2
	PYE
	QAK
	QID
	QPD
	QRI
	RCP
	RDF
	RDT
	REL
	RF1
	RFI
	RGS
	RMI
	ROL
	RQ1
	RQD
	RXA
	RXC
	RXD
	RXE
	RXG
	RXO
	RXR
	RXV
	SAC
	SCD
	SCH
	SCP
	SDD
	SFT
	SGH
	SGT

Appendix C: BNF Message Descriptions

| SHP
| SID
| SLT
| SPM
| STF
| STZ
| TCC
| TCD
| TQ1
| TQ2
| TXA
| UAC
| UB1
| UB2
| VAR
| VND

ABS := ABS-1 F-SEP ABS-2 F-SEP ABS-3 F-SEP ABS-4 F-SEP ABS-5 F-SEP ABS-6 F-SEP
ABS-7 F-SEP ABS-8 F-SEP ABS-9 F-SEP ABS-10 F-SEP ABS-11 F-SEP ABS-12 F-SEP
ABS-13 F-SEP ABS-14

ACC := ACC-1 F-SEP ACC-2 F-SEP ACC-3 F-SEP ACC-4 F-SEP ACC-5 F-SEP ACC-6 F-SEP
ACC-7 F-SEP ACC-8 F-SEP ACC-9 F-SEP ACC-10 F-SEP ACC-11 F-SEP ACC-12 F-SEP
ACC-13

ADD := ADD-1

ADJ := ADJ-1 F-SEP ADJ-2 F-SEP ADJ-3 F-SEP ADJ-4 F-SEP ADJ-5 F-SEP ADJ-6 F-SEP
ADJ-7 F-SEP ADJ-8 F-SEP ADJ-9 F-SEP ADJ-10 F-SEP ADJ-11 F-SEP ADJ-12 F-SEP
ADJ-13 F-SEP ADJ-14 F-SEP ADJ-15

AFF := AFF-1 F-SEP AFF-2 F-SEP AFF-3 F-SEP AFF-4 F-SEP AFF-5

AIG := AIG-1 F-SEP AIG-2 F-SEP AIG-3 F-SEP AIG-4 F-SEP AIG-5 F-SEP AIG-6 F-SEP
AIG-7 F-SEP AIG-8 F-SEP AIG-9 F-SEP AIG-10 F-SEP AIG-11 F-SEP AIG-12 F-SEP
AIG-13 F-SEP AIG-14

AIL := AIL-1 F-SEP AIL-2 F-SEP AIL-3 F-SEP AIL-4 F-SEP AIL-5 F-SEP AIL-6 F-SEP
AIL-7 F-SEP AIL-8 F-SEP AIL-9 F-SEP AIL-10 F-SEP AIL-11 F-SEP AIL-12

AIP := AIP-1 F-SEP AIP-2 F-SEP AIP-3 F-SEP AIP-4 F-SEP AIP-5 F-SEP AIP-6 F-SEP
AIP-7 F-SEP AIP-8 F-SEP AIP-9 F-SEP AIP-10 F-SEP AIP-11 F-SEP AIP-12

AIS := AIS-1 F-SEP AIS-2 F-SEP AIS-3 F-SEP AIS-4 F-SEP AIS-5 F-SEP AIS-6 F-SEP
AIS-7 F-SEP AIS-8 F-SEP AIS-9 F-SEP AIS-10 F-SEP AIS-11 F-SEP AIS-12

AL1 := AL1-1 F-SEP AL1-2 F-SEP AL1-3 F-SEP AL1-4 F-SEP AL1-5 F-SEP AL1-6

APR := APR-1 F-SEP APR-2 F-SEP APR-3 F-SEP APR-4 F-SEP APR-5

ARQ := ARQ-1 F-SEP ARQ-2 F-SEP ARQ-3 F-SEP ARQ-4 F-SEP ARQ-5 F-SEP ARQ-6 F-SEP
ARQ-7 F-SEP ARQ-8 F-SEP ARQ-9 F-SEP ARQ-10 F-SEP ARQ-11 F-SEP ARQ-12 F-SEP
ARQ-13 F-SEP ARQ-14 F-SEP ARQ-15 F-SEP ARQ-16 F-SEP ARQ-17 F-SEP ARQ-18 F-SEP
ARQ-19 F-SEP ARQ-20 F-SEP ARQ-21 F-SEP ARQ-22 F-SEP ARQ-23 F-SEP ARQ-24 F-SEP
ARQ-25

ARV := ARV-1 F-SEP ARV-2 F-SEP ARV-3 F-SEP ARV-4 F-SEP ARV-5 F-SEP ARV-6

AUT := AUT-1 F-SEP AUT-2 F-SEP AUT-3 F-SEP AUT-4 F-SEP AUT-5 F-SEP AUT-6 F-SEP
AUT-7 F-SEP AUT-8 F-SEP AUT-9 F-SEP AUT-10 F-SEP AUT-11 F-SEP AUT-12 F-SEP
AUT-13 F-SEP AUT-14 F-SEP AUT-15 F-SEP AUT-16 F-SEP AUT-17 F-SEP AUT-18 F-SEP
AUT-19 F-SEP AUT-20 F-SEP AUT-21 F-SEP AUT-22 F-SEP AUT-23 F-SEP AUT-24 F-SEP
AUT-25 F-SEP AUT-26 F-SEP AUT-27 F-SEP AUT-28 F-SEP AUT-29

BHS := BHS-1 F-SEP BHS-2 F-SEP BHS-3 F-SEP BHS-4 F-SEP BHS-5 F-SEP BHS-6 F-SEP
BHS-7 F-SEP BHS-8 F-SEP BHS-9 F-SEP BHS-10 F-SEP BHS-11 F-SEP BHS-12 F-SEP
BHS-13 F-SEP BHS-14

BLC := BLC-1 F-SEP BLC-2

BLG := BLG-1 F-SEP BLG-2 F-SEP BLG-3 F-SEP BLG-4

BPO := BPO-1 F-SEP BPO-2 F-SEP BPO-3 F-SEP BPO-4 F-SEP BPO-5 F-SEP BPO-6 F-SEP
BPO-7 F-SEP BPO-8 F-SEP BPO-9 F-SEP BPO-10 F-SEP BPO-11 F-SEP BPO-12 F-SEP
BPO-13 F-SEP BPO-14

BPX := BPX-1 F-SEP BPX-2 F-SEP BPX-3 F-SEP BPX-4 F-SEP BPX-5 F-SEP BPX-6 F-SEP
BPX-7 F-SEP BPX-8 F-SEP BPX-9 F-SEP BPX-10 F-SEP BPX-11 F-SEP BPX-12 F-SEP
BPX-13 F-SEP BPX-14 F-SEP BPX-15 F-SEP BPX-16 F-SEP BPX-17 F-SEP BPX-18 F-SEP
BPX-19 F-SEP BPX-20 F-SEP BPX-21

BTS := BTS-1 F-SEP BTS-2 F-SEP BTS-3

BTX := BTX-1 F-SEP BTX-2 F-SEP BTX-3 F-SEP BTX-4 F-SEP BTX-5 F-SEP BTX-6 F-SEP
BTX-7 F-SEP BTX-8 F-SEP BTX-9 F-SEP BTX-10 F-SEP BTX-11 F-SEP BTX-12 F-SEP
BTX-13 F-SEP BTX-14 F-SEP BTX-15 F-SEP BTX-16 F-SEP BTX-17 F-SEP BTX-18 F-SEP
BTX-19 F-SEP BTX-20

BUI := BUI-1 F-SEP BUI-2 F-SEP BUI-3 F-SEP BUI-4 F-SEP BUI-5 F-SEP BUI-6 F-SEP
BUI-7 F-SEP BUI-8 F-SEP BUI-9 F-SEP BUI-10 F-SEP BUI-11 F-SEP BUI-12

Appendix C: BNF Message Descriptions

CDM := CDM-1 F-SEP CDM-2 F-SEP CDM-3 F-SEP CDM-4 F-SEP CDM-5 F-SEP CDM-6 F-SEP
CDM-7 F-SEP CDM-8 F-SEP CDM-9 F-SEP CDM-10 F-SEP CDM-11 F-SEP CDM-12 F-SEP
CDM-13

CDO := CDO-1 F-SEP CDO-2 F-SEP CDO-3 F-SEP CDO-4

CER := CER-1 F-SEP CER-2 F-SEP CER-3 F-SEP CER-4 F-SEP CER-5 F-SEP CER-6 F-SEP
CER-7 F-SEP CER-8 F-SEP CER-9 F-SEP CER-10 F-SEP CER-11 F-SEP CER-12 F-SEP
CER-13 F-SEP CER-14 F-SEP CER-15 F-SEP CER-16 F-SEP CER-17 F-SEP CER-18 F-SEP
CER-19 F-SEP CER-20 F-SEP CER-21 F-SEP CER-22 F-SEP CER-23 F-SEP CER-24 F-SEP
CER-25 F-SEP CER-26 F-SEP CER-27 F-SEP CER-28 F-SEP CER-29 F-SEP CER-30 F-SEP
CER-31

CM0 := CM0-1 F-SEP CM0-2 F-SEP CM0-3 F-SEP CM0-4 F-SEP CM0-5 F-SEP CM0-6 F-SEP
CM0-7 F-SEP CM0-8 F-SEP CM0-9 F-SEP CM0-10 F-SEP CM0-11

CM1 := CM1-1 F-SEP CM1-2 F-SEP CM1-3

CM2 := CM2-1 F-SEP CM2-2 F-SEP CM2-3 F-SEP CM2-4

CNS := CNS-1 F-SEP CNS-2 F-SEP CNS-3 F-SEP CNS-4 F-SEP CNS-5 F-SEP CNS-6

CON := CON-1 F-SEP CON-2 F-SEP CON-3 F-SEP CON-4 F-SEP CON-5 F-SEP CON-6 F-SEP
CON-7 F-SEP CON-8 F-SEP CON-9 F-SEP CON-10 F-SEP CON-11 F-SEP CON-12 F-SEP
CON-13 F-SEP CON-14 F-SEP CON-15 F-SEP CON-16 F-SEP CON-17 F-SEP CON-18 F-SEP
CON-19 F-SEP CON-20 F-SEP CON-21 F-SEP CON-22 F-SEP CON-23 F-SEP CON-24 F-SEP
CON-25

CSP := CSP-1 F-SEP CSP-2 F-SEP CSP-3 F-SEP CSP-4

CSR := CSR-1 F-SEP CSR-2 F-SEP CSR-3 F-SEP CSR-4 F-SEP CSR-5 F-SEP CSR-6 F-SEP
CSR-7 F-SEP CSR-8 F-SEP CSR-9 F-SEP CSR-10 F-SEP CSR-11 F-SEP CSR-12 F-SEP
CSR-13 F-SEP CSR-14 F-SEP CSR-15 F-SEP CSR-16

CSS := CSS-1 F-SEP CSS-2 F-SEP CSS-3

CTD := CTD-1 F-SEP CTD-2 F-SEP CTD-3 F-SEP CTD-4 F-SEP CTD-5 F-SEP CTD-6 F-SEP
CTD-7

CTI := CTI-1 F-SEP CTI-2 F-SEP CTI-3

DB1 := DB1-1 F-SEP DB1-2 F-SEP DB1-3 F-SEP DB1-4 F-SEP DB1-5 F-SEP DB1-6 F-SEP
DB1-7 F-SEP DB1-8

DG1 := DG1-1 F-SEP DG1-2 F-SEP DG1-3 F-SEP DG1-4 F-SEP DG1-5 F-SEP DG1-6 F-SEP
DG1-7 F-SEP DG1-8 F-SEP DG1-9 F-SEP DG1-10 F-SEP DG1-11 F-SEP DG1-12 F-SEP
DG1-13 F-SEP DG1-14 F-SEP DG1-15 F-SEP DG1-16 F-SEP DG1-17 F-SEP DG1-18 F-SEP
DG1-19 F-SEP DG1-20 F-SEP DG1-21 F-SEP DG1-22 F-SEP DG1-23 F-SEP DG1-24 F-SEP
DG1-25 F-SEP DG1-26

DMI := DMI-1 F-SEP DMI-2 F-SEP DMI-3 F-SEP DMI-4 F-SEP DMI-5

DON := DON-1 F-SEP DON-2 F-SEP DON-3 F-SEP DON-4 F-SEP DON-5 F-SEP DON-6 F-SEP
DON-7 F-SEP DON-8 F-SEP DON-9 F-SEP DON-10 F-SEP DON-11 F-SEP DON-12 F-SEP
DON-13 F-SEP DON-14 F-SEP DON-15 F-SEP DON-16 F-SEP DON-17 F-SEP DON-18 F-SEP
DON-19 F-SEP DON-20 F-SEP DON-21 F-SEP DON-22 F-SEP DON-23 F-SEP DON-24 F-SEP
DON-25 F-SEP DON-26 F-SEP DON-27 F-SEP DON-28 F-SEP DON-29 F-SEP DON-30 F-SEP
DON-31 F-SEP DON-32 F-SEP DON-33

DPS := DPS-1 F-SEP DPS-2 F-SEP DPS-3 F-SEP DPS-4 F-SEP DPS-5

DRG := DRG-1 F-SEP DRG-2 F-SEP DRG-3 F-SEP DRG-4 F-SEP DRG-5 F-SEP DRG-6 F-SEP
DRG-7 F-SEP DRG-8 F-SEP DRG-9 F-SEP DRG-10 F-SEP DRG-11 F-SEP DRG-12 F-SEP
DRG-13 F-SEP DRG-14 F-SEP DRG-15 F-SEP DRG-16 F-SEP DRG-17 F-SEP DRG-18 F-SEP
DRG-19 F-SEP DRG-20 F-SEP DRG-21 F-SEP DRG-22 F-SEP DRG-23 F-SEP DRG-24 F-SEP
DRG-25 F-SEP DRG-26 F-SEP DRG-27 F-SEP DRG-28 F-SEP DRG-29 F-SEP DRG-30 F-SEP
DRG-31 F-SEP DRG-32 F-SEP DRG-33

DSC := DSC-1 F-SEP DSC-2

DSP := DSP-1 F-SEP DSP-2 F-SEP DSP-3 F-SEP DSP-4 F-SEP DSP-5

ECD := ECD-1 F-SEP ECD-2 F-SEP ECD-3 F-SEP ECD-4 F-SEP ECD-5

ECR := ECR-1 F-SEP ECR-2 F-SEP ECR-3

EDU := EDU-1 F-SEP EDU-2 F-SEP EDU-3 F-SEP EDU-4 F-SEP EDU-5 F-SEP EDU-6 F-SEP
EDU-7 F-SEP EDU-8 F-SEP EDU-9

EQP := EQP-1 F-SEP EQP-2 F-SEP EQP-3 F-SEP EQP-4 F-SEP EQP-5

EQU := EQU-1 F-SEP EQU-2 F-SEP EQU-3 F-SEP EQU-4 F-SEP EQU-5

ERR := ERR-1 F-SEP ERR-2 F-SEP ERR-3 F-SEP ERR-4 F-SEP ERR-5 F-SEP ERR-6 F-SEP
ERR-7 F-SEP ERR-8 F-SEP ERR-9 F-SEP ERR-10 F-SEP ERR-11 F-SEP ERR-12

EVN := EVN-1 F-SEP EVN-2 F-SEP EVN-3 F-SEP EVN-4 F-SEP EVN-5 F-SEP EVN-6 F-SEP
EVN-7

Appendix C: BNF Message Descriptions

FAC := FAC-1 F-SEP FAC-2 F-SEP FAC-3 F-SEP FAC-4 F-SEP FAC-5 F-SEP FAC-6 F-SEP
FAC-7 F-SEP FAC-8 F-SEP FAC-9 F-SEP FAC-10 F-SEP FAC-11 F-SEP FAC-12

FHS := FHS-1 F-SEP FHS-2 F-SEP FHS-3 F-SEP FHS-4 F-SEP FHS-5 F-SEP FHS-6 F-SEP
FHS-7 F-SEP FHS-8 F-SEP FHS-9 F-SEP FHS-10 F-SEP FHS-11 F-SEP FHS-12 F-SEP
FHS-13 F-SEP FHS-14

FT1 := FT1-1 F-SEP FT1-2 F-SEP FT1-3 F-SEP FT1-4 F-SEP FT1-5 F-SEP FT1-6 F-SEP
FT1-7 F-SEP FT1-8 F-SEP FT1-9 F-SEP FT1-10 F-SEP FT1-11 F-SEP FT1-12 F-SEP
FT1-13 F-SEP FT1-14 F-SEP FT1-15 F-SEP FT1-16 F-SEP FT1-17 F-SEP FT1-18 F-SEP
FT1-19 F-SEP FT1-20 F-SEP FT1-21 F-SEP FT1-22 F-SEP FT1-23 F-SEP FT1-24 F-SEP
FT1-25 F-SEP FT1-26 F-SEP FT1-27 F-SEP FT1-28 F-SEP FT1-29 F-SEP FT1-30 F-SEP
FT1-31 F-SEP FT1-32 F-SEP FT1-33 F-SEP FT1-34 F-SEP FT1-35 F-SEP FT1-36 F-SEP
FT1-37 F-SEP FT1-38 F-SEP FT1-39 F-SEP FT1-40 F-SEP FT1-41 F-SEP FT1-42 F-SEP
FT1-43

FTS := FTS-1 F-SEP FTS-2

GOL := GOL-1 F-SEP GOL-2 F-SEP GOL-3 F-SEP GOL-4 F-SEP GOL-5 F-SEP GOL-6 F-SEP
GOL-7 F-SEP GOL-8 F-SEP GOL-9 F-SEP GOL-10 F-SEP GOL-11 F-SEP GOL-12 F-SEP
GOL-13 F-SEP GOL-14 F-SEP GOL-15 F-SEP GOL-16 F-SEP GOL-17 F-SEP GOL-18 F-SEP
GOL-19 F-SEP GOL-20 F-SEP GOL-21 F-SEP GOL-22

GP1 := GP1-1 F-SEP GP1-2 F-SEP GP1-3 F-SEP GP1-4 F-SEP GP1-5

GP2 := GP2-1 F-SEP GP2-2 F-SEP GP2-3 F-SEP GP2-4 F-SEP GP2-5 F-SEP GP2-6 F-SEP
GP2-7 F-SEP GP2-8 F-SEP GP2-9 F-SEP GP2-10 F-SEP GP2-11 F-SEP GP2-12 F-SEP
GP2-13 F-SEP GP2-14

GT1 := GT1-1 F-SEP GT1-2 F-SEP GT1-3 F-SEP GT1-4 F-SEP GT1-5 F-SEP GT1-6 F-SEP
GT1-7 F-SEP GT1-8 F-SEP GT1-9 F-SEP GT1-10 F-SEP GT1-11 F-SEP GT1-12 F-SEP
GT1-13 F-SEP GT1-14 F-SEP GT1-15 F-SEP GT1-16 F-SEP GT1-17 F-SEP GT1-18 F-SEP
GT1-19 F-SEP GT1-20 F-SEP GT1-21 F-SEP GT1-22 F-SEP GT1-23 F-SEP GT1-24 F-SEP
GT1-25 F-SEP GT1-26 F-SEP GT1-27 F-SEP GT1-28 F-SEP GT1-29 F-SEP GT1-30 F-SEP
GT1-31 F-SEP GT1-32 F-SEP GT1-33 F-SEP GT1-34 F-SEP GT1-35 F-SEP GT1-36 F-SEP
GT1-37 F-SEP GT1-38 F-SEP GT1-39 F-SEP GT1-40 F-SEP GT1-41 F-SEP GT1-42 F-SEP
GT1-43 F-SEP GT1-44 F-SEP GT1-45 F-SEP GT1-46 F-SEP GT1-47 F-SEP GT1-48 F-SEP
GT1-49 F-SEP GT1-50 F-SEP GT1-51 F-SEP GT1-52 F-SEP GT1-53 F-SEP GT1-54 F-SEP
GT1-55 F-SEP GT1-56 F-SEP GT1-57

IAM := IAM-1 F-SEP IAM-2 F-SEP IAM-3 F-SEP IAM-4 F-SEP IAM-5 F-SEP IAM-6 F-SEP
IAM-7 F-SEP IAM-8 F-SEP IAM-9 F-SEP IAM-10 F-SEP IAM-11 F-SEP IAM-12 F-SEP
IAM-13 F-SEP IAM-14 F-SEP IAM-15 F-SEP IAM-16 F-SEP IAM-17 F-SEP IAM-18 F-SEP
IAM-19 F-SEP IAM-20 F-SEP IAM-21 F-SEP IAM-22 F-SEP IAM-23 F-SEP IAM-24 F-SEP
IAM-25 F-SEP IAM-26 F-SEP IAM-27 F-SEP IAM-28 F-SEP IAM-29 F-SEP IAM-30

IAR := IAR-1 F-SEP IAR-2 F-SEP IAR-3 F-SEP IAR-4

IIM := IIM-1 F-SEP IIM-2 F-SEP IIM-3 F-SEP IIM-4 F-SEP IIM-5 F-SEP IIM-6 F-SEP
IIM-7 F-SEP IIM-8 F-SEP IIM-9 F-SEP IIM-10 F-SEP IIM-11 F-SEP IIM-12 F-SEP
IIM-13 F-SEP IIM-14 F-SEP IIM-15

ILT := ILT-1 F-SEP ILT-2 F-SEP ILT-3 F-SEP ILT-4 F-SEP ILT-5 F-SEP ILT-6 F-SEP
ILT-7 F-SEP ILT-8 F-SEP ILT-9 F-SEP ILT-10

IN1 := IN1-1 F-SEP IN1-2 F-SEP IN1-3 F-SEP IN1-4 F-SEP IN1-5 F-SEP IN1-6 F-SEP
IN1-7 F-SEP IN1-8 F-SEP IN1-9 F-SEP IN1-10 F-SEP IN1-11 F-SEP IN1-12 F-SEP
IN1-13 F-SEP IN1-14 F-SEP IN1-15 F-SEP IN1-16 F-SEP IN1-17 F-SEP IN1-18 F-SEP
IN1-19 F-SEP IN1-20 F-SEP IN1-21 F-SEP IN1-22 F-SEP IN1-23 F-SEP IN1-24 F-SEP
IN1-25 F-SEP IN1-26 F-SEP IN1-27 F-SEP IN1-28 F-SEP IN1-29 F-SEP IN1-30 F-SEP
IN1-31 F-SEP IN1-32 F-SEP IN1-33 F-SEP IN1-34 F-SEP IN1-35 F-SEP IN1-36 F-SEP
IN1-37 F-SEP IN1-38 F-SEP IN1-39 F-SEP IN1-40 F-SEP IN1-41 F-SEP IN1-42 F-SEP
IN1-43 F-SEP IN1-44 F-SEP IN1-45 F-SEP IN1-46 F-SEP IN1-47 F-SEP IN1-48 F-SEP
IN1-49 F-SEP IN1-50 F-SEP IN1-51 F-SEP IN1-52 F-SEP IN1-53 F-SEP IN1-54 F-SEP
IN1-55

IN2 := IN2-1 F-SEP IN2-2 F-SEP IN2-3 F-SEP IN2-4 F-SEP IN2-5 F-SEP IN2-6 F-SEP
IN2-7 F-SEP IN2-8 F-SEP IN2-9 F-SEP IN2-10 F-SEP IN2-11 F-SEP IN2-12 F-SEP
IN2-13 F-SEP IN2-14 F-SEP IN2-15 F-SEP IN2-16 F-SEP IN2-17 F-SEP IN2-18 F-SEP
IN2-19 F-SEP IN2-20 F-SEP IN2-21 F-SEP IN2-22 F-SEP IN2-23 F-SEP IN2-24 F-SEP
IN2-25 F-SEP IN2-26 F-SEP IN2-27 F-SEP IN2-28 F-SEP IN2-29 F-SEP IN2-30 F-SEP
IN2-31 F-SEP IN2-32 F-SEP IN2-33 F-SEP IN2-34 F-SEP IN2-35 F-SEP IN2-36 F-SEP
IN2-37 F-SEP IN2-38 F-SEP IN2-39 F-SEP IN2-40 F-SEP IN2-41 F-SEP IN2-42 F-SEP
IN2-43 F-SEP IN2-44 F-SEP IN2-45 F-SEP IN2-46 F-SEP IN2-47 F-SEP IN2-48 F-SEP
IN2-49 F-SEP IN2-50 F-SEP IN2-51 F-SEP IN2-52 F-SEP IN2-53 F-SEP IN2-54 F-SEP
IN2-55 F-SEP IN2-56 F-SEP IN2-57 F-SEP IN2-58 F-SEP IN2-59 F-SEP IN2-60 F-SEP
IN2-61 F-SEP IN2-62 F-SEP IN2-63 F-SEP IN2-64 F-SEP IN2-65 F-SEP IN2-66 F-SEP
IN2-67 F-SEP IN2-68 F-SEP IN2-69 F-SEP IN2-70 F-SEP IN2-71 F-SEP IN2-72

IN3 := IN3-1 F-SEP IN3-2 F-SEP IN3-3 F-SEP IN3-4 F-SEP IN3-5 F-SEP IN3-6 F-SEP
IN3-7 F-SEP IN3-8 F-SEP IN3-9 F-SEP IN3-10 F-SEP IN3-11 F-SEP IN3-12 F-SEP
IN3-13 F-SEP IN3-14 F-SEP IN3-15 F-SEP IN3-16 F-SEP IN3-17 F-SEP IN3-18 F-SEP
IN3-19 F-SEP IN3-20 F-SEP IN3-21 F-SEP IN3-22 F-SEP IN3-23 F-SEP IN3-24 F-SEP
IN3-25 F-SEP IN3-26 F-SEP IN3-27

INV := INV-1 F-SEP INV-2 F-SEP INV-3 F-SEP INV-4 F-SEP INV-5 F-SEP INV-6 F-SEP
INV-7 F-SEP INV-8 F-SEP INV-9 F-SEP INV-10 F-SEP INV-11 F-SEP INV-12 F-SEP
INV-13 F-SEP INV-14 F-SEP INV-15 F-SEP INV-16 F-SEP INV-17 F-SEP INV-18 F-SEP
INV-19 F-SEP INV-20

IPC := IPC-1 F-SEP IPC-2 F-SEP IPC-3 F-SEP IPC-4 F-SEP IPC-5 F-SEP IPC-6 F-SEP
IPC-7 F-SEP IPC-8 F-SEP IPC-9

IPR := IPR-1 F-SEP IPR-2 F-SEP IPR-3 F-SEP IPR-4 F-SEP IPR-5 F-SEP IPR-6 F-SEP
IPR-7 F-SEP IPR-8

ISD := ISD-1 F-SEP ISD-2 F-SEP ISD-3

Appendix C: BNF Message Descriptions

ITM := ITM-1 F-SEP ITM-2 F-SEP ITM-3 F-SEP ITM-4 F-SEP ITM-5 F-SEP ITM-6 F-SEP
ITM-7 F-SEP ITM-8 F-SEP ITM-9 F-SEP ITM-10 F-SEP ITM-11 F-SEP ITM-12 F-SEP
ITM-13 F-SEP ITM-14 F-SEP ITM-15 F-SEP ITM-16 F-SEP ITM-17 F-SEP ITM-18 F-SEP
ITM-19 F-SEP ITM-20 F-SEP ITM-21 F-SEP ITM-22 F-SEP ITM-23 F-SEP ITM-24 F-SEP
ITM-25 F-SEP ITM-26 F-SEP ITM-27 F-SEP ITM-28 F-SEP ITM-29 F-SEP ITM-30 F-SEP
ITM-31 F-SEP ITM-32 F-SEP ITM-33

IVC := IVC-1 F-SEP IVC-2 F-SEP IVC-3 F-SEP IVC-4 F-SEP IVC-5 F-SEP IVC-6 F-SEP
IVC-7 F-SEP IVC-8 F-SEP IVC-9 F-SEP IVC-10 F-SEP IVC-11 F-SEP IVC-12 F-SEP
IVC-13 F-SEP IVC-14 F-SEP IVC-15 F-SEP IVC-16 F-SEP IVC-17 F-SEP IVC-18 F-SEP
IVC-19 F-SEP IVC-20 F-SEP IVC-21 F-SEP IVC-22 F-SEP IVC-23 F-SEP IVC-24 F-SEP
IVC-25 F-SEP IVC-26 F-SEP IVC-27 F-SEP IVC-28 F-SEP IVC-29 F-SEP IVC-30

IVT := IVT-1 F-SEP IVT-2 F-SEP IVT-3 F-SEP IVT-4 F-SEP IVT-5 F-SEP IVT-6 F-SEP
IVT-7 F-SEP IVT-8 F-SEP IVT-9 F-SEP IVT-10 F-SEP IVT-11 F-SEP IVT-12 F-SEP
IVT-13 F-SEP IVT-14 F-SEP IVT-15 F-SEP IVT-16 F-SEP IVT-17 F-SEP IVT-18 F-SEP
IVT-19 F-SEP IVT-20 F-SEP IVT-21 F-SEP IVT-22 F-SEP IVT-23 F-SEP IVT-24 F-SEP
IVT-25 F-SEP IVT-26

LAN := LAN-1 F-SEP LAN-2 F-SEP LAN-3 F-SEP LAN-4

LCC := LCC-1 F-SEP LCC-2 F-SEP LCC-3 F-SEP LCC-4

LCH := LCH-1 F-SEP LCH-2 F-SEP LCH-3 F-SEP LCH-4 F-SEP LCH-5

LDP := LDP-1 F-SEP LDP-2 F-SEP LDP-3 F-SEP LDP-4 F-SEP LDP-5 F-SEP LDP-6 F-SEP
LDP-7 F-SEP LDP-8 F-SEP LDP-9 F-SEP LDP-10 F-SEP LDP-11 F-SEP LDP-12

LOC := LOC-1 F-SEP LOC-2 F-SEP LOC-3 F-SEP LOC-4 F-SEP LOC-5 F-SEP LOC-6 F-SEP
LOC-7 F-SEP LOC-8 F-SEP LOC-9

LRL := LRL-1 F-SEP LRL-2 F-SEP LRL-3 F-SEP LRL-4 F-SEP LRL-5 F-SEP LRL-6

MCP := MCP-1 F-SEP MCP-2 F-SEP MCP-3 F-SEP MCP-4 F-SEP MCP-5

MFA := MFA-1 F-SEP MFA-2 F-SEP MFA-3 F-SEP MFA-4 F-SEP MFA-5 F-SEP MFA-6

MFE := MFE-1 F-SEP MFE-2 F-SEP MFE-3 F-SEP MFE-4 F-SEP MFE-5 F-SEP MFE-6 F-SEP
MFE-7

MFI := MFI-1 F-SEP MFI-2 F-SEP MFI-3 F-SEP MFI-4 F-SEP MFI-5 F-SEP MFI-6

MRG := MRG-1 F-SEP MRG-2 F-SEP MRG-3 F-SEP MRG-4 F-SEP MRG-5 F-SEP MRG-6 F-SEP
MRG-7

MSA := MSA-1 F-SEP MSA-2 F-SEP MSA-3 F-SEP MSA-4 F-SEP MSA-5 F-SEP MSA-6 F-SEP
MSA-7 F-SEP MSA-8

MSH := MSH-1 F-SEP MSH-2 F-SEP MSH-3 F-SEP MSH-4 F-SEP MSH-5 F-SEP MSH-6 F-SEP
MSH-7 F-SEP MSH-8 F-SEP MSH-9 F-SEP MSH-10 F-SEP MSH-11 F-SEP MSH-12 F-SEP
MSH-13 F-SEP MSH-14 F-SEP MSH-15 F-SEP MSH-16 F-SEP MSH-17 F-SEP MSH-18 F-SEP
MSH-19 F-SEP MSH-20 F-SEP MSH-21 F-SEP MSH-22 F-SEP MSH-23 F-SEP MSH-24 F-SEP
MSH-25

NCK := NCK-1

NDS := NDS-1 F-SEP NDS-2 F-SEP NDS-3 F-SEP NDS-4

NK1 := NK1-1 F-SEP NK1-2 F-SEP NK1-3 F-SEP NK1-4 F-SEP NK1-5 F-SEP NK1-6 F-SEP
NK1-7 F-SEP NK1-8 F-SEP NK1-9 F-SEP NK1-10 F-SEP NK1-11 F-SEP NK1-12 F-SEP
NK1-13 F-SEP NK1-14 F-SEP NK1-15 F-SEP NK1-16 F-SEP NK1-17 F-SEP NK1-18 F-SEP
NK1-19 F-SEP NK1-20 F-SEP NK1-21 F-SEP NK1-22 F-SEP NK1-23 F-SEP NK1-24 F-SEP
NK1-25 F-SEP NK1-26 F-SEP NK1-27 F-SEP NK1-28 F-SEP NK1-29 F-SEP NK1-30 F-SEP
NK1-31 F-SEP NK1-32 F-SEP NK1-33 F-SEP NK1-34 F-SEP NK1-35 F-SEP NK1-36 F-SEP
NK1-37 F-SEP NK1-38 F-SEP NK1-39 F-SEP NK1-40 F-SEP NK1-41

NPU := NPU-1 F-SEP NPU-2

NSC := NSC-1 F-SEP NSC-2 F-SEP NSC-3 F-SEP NSC-4 F-SEP NSC-5 F-SEP NSC-6 F-SEP
NSC-7 F-SEP NSC-8 F-SEP NSC-9

NST := NST-1 F-SEP NST-2 F-SEP NST-3 F-SEP NST-4 F-SEP NST-5 F-SEP NST-6 F-SEP
NST-7 F-SEP NST-8 F-SEP NST-9 F-SEP NST-10 F-SEP NST-11 F-SEP NST-12 F-SEP
NST-13 F-SEP NST-14 F-SEP NST-15

NTE := NTE-1 F-SEP NTE-2 F-SEP NTE-3 F-SEP NTE-4 F-SEP NTE-5 F-SEP NTE-6 F-SEP
NTE-7 F-SEP NTE-8

OBR := OBR-1 F-SEP OBR-2 F-SEP OBR-3 F-SEP OBR-4 F-SEP OBR-5 F-SEP OBR-6 F-SEP
OBR-7 F-SEP OBR-8 F-SEP OBR-9 F-SEP OBR-10 F-SEP OBR-11 F-SEP OBR-12 F-SEP
OBR-13 F-SEP OBR-14 F-SEP OBR-15 F-SEP OBR-16 F-SEP OBR-17 F-SEP OBR-18 F-SEP
OBR-19 F-SEP OBR-20 F-SEP OBR-21 F-SEP OBR-22 F-SEP OBR-23 F-SEP OBR-24 F-SEP
OBR-25 F-SEP OBR-26 F-SEP OBR-27 F-SEP OBR-28 F-SEP OBR-29 F-SEP OBR-30 F-SEP
OBR-31 F-SEP OBR-32 F-SEP OBR-33 F-SEP OBR-34 F-SEP OBR-35 F-SEP OBR-36 F-SEP
OBR-37 F-SEP OBR-38 F-SEP OBR-39 F-SEP OBR-40 F-SEP OBR-41 F-SEP OBR-42 F-SEP
OBR-43 F-SEP OBR-44 F-SEP OBR-45 F-SEP OBR-46 F-SEP OBR-47 F-SEP OBR-48 F-SEP
OBR-49 F-SEP OBR-50 F-SEP OBR-51 F-SEP OBR-52 F-SEP OBR-53 F-SEP OBR-54

Appendix C: BNF Message Descriptions

OBX := OBX-1 F-SEP OBX-2 F-SEP OBX-3 F-SEP OBX-4 F-SEP OBX-5 F-SEP OBX-6 F-SEP
OBX-7 F-SEP OBX-8 F-SEP OBX-9 F-SEP OBX-10 F-SEP OBX-11 F-SEP OBX-12 F-SEP
OBX-13 F-SEP OBX-14 F-SEP OBX-15 F-SEP OBX-16 F-SEP OBX-17 F-SEP OBX-18 F-SEP
OBX-19 F-SEP OBX-20 F-SEP OBX-21 F-SEP OBX-22 F-SEP OBX-23 F-SEP OBX-24 F-SEP
OBX-25 F-SEP OBX-26 F-SEP OBX-27 F-SEP OBX-28 F-SEP OBX-29 F-SEP OBX-30

ODS := ODS-1 F-SEP ODS-2 F-SEP ODS-3 F-SEP ODS-4

ODT := ODT-1 F-SEP ODT-2 F-SEP ODT-3

OM1 := OM1-1 F-SEP OM1-2 F-SEP OM1-3 F-SEP OM1-4 F-SEP OM1-5 F-SEP OM1-6 F-SEP
OM1-7 F-SEP OM1-8 F-SEP OM1-9 F-SEP OM1-10 F-SEP OM1-11 F-SEP OM1-12 F-SEP
OM1-13 F-SEP OM1-14 F-SEP OM1-15 F-SEP OM1-16 F-SEP OM1-17 F-SEP OM1-18 F-SEP
OM1-19 F-SEP OM1-20 F-SEP OM1-21 F-SEP OM1-22 F-SEP OM1-23 F-SEP OM1-24 F-SEP
OM1-25 F-SEP OM1-26 F-SEP OM1-27 F-SEP OM1-28 F-SEP OM1-29 F-SEP OM1-30 F-SEP
OM1-31 F-SEP OM1-32 F-SEP OM1-33 F-SEP OM1-34 F-SEP OM1-35 F-SEP OM1-36 F-SEP
OM1-37 F-SEP OM1-38 F-SEP OM1-39 F-SEP OM1-40 F-SEP OM1-41 F-SEP OM1-42 F-SEP
OM1-43 F-SEP OM1-44 F-SEP OM1-45 F-SEP OM1-46 F-SEP OM1-47 F-SEP OM1-48 F-SEP
OM1-49 F-SEP OM1-50 F-SEP OM1-51 F-SEP OM1-52 F-SEP OM1-53 F-SEP OM1-54 F-SEP
OM1-55 F-SEP OM1-56 F-SEP OM1-57 F-SEP OM1-58 F-SEP OM1-59

OM2 := OM2-1 F-SEP OM2-2 F-SEP OM2-3 F-SEP OM2-4 F-SEP OM2-5 F-SEP OM2-6 F-SEP
OM2-7 F-SEP OM2-8 F-SEP OM2-9 F-SEP OM2-10

OM3 := OM3-1 F-SEP OM3-2 F-SEP OM3-3 F-SEP OM3-4 F-SEP OM3-5 F-SEP OM3-6 F-SEP
OM3-7

OM4 := OM4-1 F-SEP OM4-2 F-SEP OM4-3 F-SEP OM4-4 F-SEP OM4-5 F-SEP OM4-6 F-SEP
OM4-7 F-SEP OM4-8 F-SEP OM4-9 F-SEP OM4-10 F-SEP OM4-11 F-SEP OM4-12 F-SEP
OM4-13 F-SEP OM4-14 F-SEP OM4-15 F-SEP OM4-16 F-SEP OM4-17 F-SEP OM4-18

OM5 := OM5-1 F-SEP OM5-2 F-SEP OM5-3

OM6 := OM6-1 F-SEP OM6-2

OM7 := OM7-1 F-SEP OM7-2 F-SEP OM7-3 F-SEP OM7-4 F-SEP OM7-5 F-SEP OM7-6 F-SEP
OM7-7 F-SEP OM7-8 F-SEP OM7-9 F-SEP OM7-10 F-SEP OM7-11 F-SEP OM7-12 F-SEP
OM7-13 F-SEP OM7-14 F-SEP OM7-15 F-SEP OM7-16 F-SEP OM7-17 F-SEP OM7-18 F-SEP
OM7-19 F-SEP OM7-20 F-SEP OM7-21 F-SEP OM7-22 F-SEP OM7-23 F-SEP OM7-24

OMC := OMC-1 F-SEP OMC-2 F-SEP OMC-3 F-SEP OMC-4 F-SEP OMC-5 F-SEP OMC-6 F-SEP
OMC-7 F-SEP OMC-8 F-SEP OMC-9 F-SEP OMC-10 F-SEP OMC-11 F-SEP OMC-12 F-SEP
OMC-13

ORC := ORC-1 F-SEP ORC-2 F-SEP ORC-3 F-SEP ORC-4 F-SEP ORC-5 F-SEP ORC-6 F-SEP
ORC-7 F-SEP ORC-8 F-SEP ORC-9 F-SEP ORC-10 F-SEP ORC-11 F-SEP ORC-12 F-SEP
ORC-13 F-SEP ORC-14 F-SEP ORC-15 F-SEP ORC-16 F-SEP ORC-17 F-SEP ORC-18 F-SEP

ORC-19 F-SEP ORC-20 F-SEP ORC-21 F-SEP ORC-22 F-SEP ORC-23 F-SEP ORC-24 F-SEP
ORC-25 F-SEP ORC-26 F-SEP ORC-27 F-SEP ORC-28 F-SEP ORC-29 F-SEP ORC-30 F-SEP
ORC-31 F-SEP ORC-32 F-SEP ORC-33 F-SEP ORC-34

ORG := ORG-1 F-SEP ORG-2 F-SEP ORG-3 F-SEP ORG-4 F-SEP ORG-5 F-SEP ORG-6 F-SEP
ORG-7 F-SEP ORG-8 F-SEP ORG-9 F-SEP ORG-10 F-SEP ORG-11 F-SEP ORG-12 F-SEP
ORG-13

OVR := OVR-1 F-SEP OVR-2 F-SEP OVR-3 F-SEP OVR-4 F-SEP OVR-5

PAC := PAC-1 F-SEP PAC-2 F-SEP PAC-3 F-SEP PAC-4 F-SEP PAC-5 F-SEP PAC-6 F-SEP
PAC-7 F-SEP PAC-8

PCE := PCE-1 F-SEP PCE-2 F-SEP PCE-3 F-SEP PCE-4

PCR := PCR-1 F-SEP PCR-2 F-SEP PCR-3 F-SEP PCR-4 F-SEP PCR-5 F-SEP PCR-6 F-SEP
PCR-7 F-SEP PCR-8 F-SEP PCR-9 F-SEP PCR-10 F-SEP PCR-11 F-SEP PCR-12 F-SEP
PCR-13 F-SEP PCR-14 F-SEP PCR-15 F-SEP PCR-16 F-SEP PCR-17 F-SEP PCR-18 F-SEP
PCR-19 F-SEP PCR-20 F-SEP PCR-21 F-SEP PCR-22 F-SEP PCR-23

PD1 := PD1-1 F-SEP PD1-2 F-SEP PD1-3 F-SEP PD1-4 F-SEP PD1-5 F-SEP PD1-6 F-SEP
PD1-7 F-SEP PD1-8 F-SEP PD1-9 F-SEP PD1-10 F-SEP PD1-11 F-SEP PD1-12 F-SEP
PD1-13 F-SEP PD1-14 F-SEP PD1-15 F-SEP PD1-16 F-SEP PD1-17 F-SEP PD1-18 F-SEP
PD1-19 F-SEP PD1-20 F-SEP PD1-21 F-SEP PD1-22

PDA := PDA-1 F-SEP PDA-2 F-SEP PDA-3 F-SEP PDA-4 F-SEP PDA-5 F-SEP PDA-6 F-SEP
PDA-7 F-SEP PDA-8 F-SEP PDA-9

PDC := PDC-1 F-SEP PDC-2 F-SEP PDC-3 F-SEP PDC-4 F-SEP PDC-5 F-SEP PDC-6 F-SEP
PDC-7 F-SEP PDC-8 F-SEP PDC-9 F-SEP PDC-10 F-SEP PDC-11 F-SEP PDC-12 F-SEP
PDC-13 F-SEP PDC-14 F-SEP PDC-15

PEO := PEO-1 F-SEP PEO-2 F-SEP PEO-3 F-SEP PEO-4 F-SEP PEO-5 F-SEP PEO-6 F-SEP
PEO-7 F-SEP PEO-8 F-SEP PEO-9 F-SEP PEO-10 F-SEP PEO-11 F-SEP PEO-12 F-SEP
PEO-13 F-SEP PEO-14 F-SEP PEO-15 F-SEP PEO-16 F-SEP PEO-17 F-SEP PEO-18 F-SEP
PEO-19 F-SEP PEO-20 F-SEP PEO-21 F-SEP PEO-22 F-SEP PEO-23 F-SEP PEO-24 F-SEP
PEO-25

PES := PES-1 F-SEP PES-2 F-SEP PES-3 F-SEP PES-4 F-SEP PES-5 F-SEP PES-6 F-SEP
PES-7 F-SEP PES-8 F-SEP PES-9 F-SEP PES-10 F-SEP PES-11 F-SEP PES-12 F-SEP
PES-13

PID := PID-1 F-SEP PID-2 F-SEP PID-3 F-SEP PID-4 F-SEP PID-5 F-SEP PID-6 F-SEP
PID-7 F-SEP PID-8 F-SEP PID-9 F-SEP PID-10 F-SEP PID-11 F-SEP PID-12 F-SEP
PID-13 F-SEP PID-14 F-SEP PID-15 F-SEP PID-16 F-SEP PID-17 F-SEP PID-18 F-SEP
PID-19 F-SEP PID-20 F-SEP PID-21 F-SEP PID-22 F-SEP PID-23 F-SEP PID-24 F-SEP
PID-25 F-SEP PID-26 F-SEP PID-27 F-SEP PID-28 F-SEP PID-29 F-SEP PID-30 F-SEP

Appendix C: BNF Message Descriptions

PID-31 F-SEP PID-32 F-SEP PID-33 F-SEP PID-34 F-SEP PID-35 F-SEP PID-36 F-SEP
PID-37 F-SEP PID-38 F-SEP PID-39 F-SEP PID-40

PKG := PKG-1 F-SEP PKG-2 F-SEP PKG-3 F-SEP PKG-4 F-SEP PKG-5 F-SEP PKG-6 F-SEP
PKG-7 F-SEP PKG-8

PM1 := PM1-1 F-SEP PM1-2 F-SEP PM1-3 F-SEP PM1-4 F-SEP PM1-5 F-SEP PM1-6 F-SEP
PM1-7 F-SEP PM1-8 F-SEP PM1-9 F-SEP PM1-10 F-SEP PM1-11 F-SEP PM1-12 F-SEP
PM1-13 F-SEP PM1-14 F-SEP PM1-15 F-SEP PM1-16 F-SEP PM1-17 F-SEP PM1-18 F-SEP
PM1-19 F-SEP PM1-20 F-SEP PM1-21 F-SEP PM1-22 F-SEP PM1-23 F-SEP PM1-24

PMT := PMT-1 F-SEP PMT-2 F-SEP PMT-3 F-SEP PMT-4 F-SEP PMT-5 F-SEP PMT-6 F-SEP
PMT-7 F-SEP PMT-8 F-SEP PMT-9 F-SEP PMT-10 F-SEP PMT-11 F-SEP PMT-12

PR1 := PR1-1 F-SEP PR1-2 F-SEP PR1-3 F-SEP PR1-4 F-SEP PR1-5 F-SEP PR1-6 F-SEP
PR1-7 F-SEP PR1-8 F-SEP PR1-9 F-SEP PR1-10 F-SEP PR1-11 F-SEP PR1-12 F-SEP
PR1-13 F-SEP PR1-14 F-SEP PR1-15 F-SEP PR1-16 F-SEP PR1-17 F-SEP PR1-18 F-SEP
PR1-19 F-SEP PR1-20 F-SEP PR1-21 F-SEP PR1-22 F-SEP PR1-23 F-SEP PR1-24 F-SEP
PR1-25

PRA := PRA-1 F-SEP PRA-2 F-SEP PRA-3 F-SEP PRA-4 F-SEP PRA-5 F-SEP PRA-6 F-SEP
PRA-7 F-SEP PRA-8 F-SEP PRA-9 F-SEP PRA-10 F-SEP PRA-11 F-SEP PRA-12

PRB := PRB-1 F-SEP PRB-2 F-SEP PRB-3 F-SEP PRB-4 F-SEP PRB-5 F-SEP PRB-6 F-SEP
PRB-7 F-SEP PRB-8 F-SEP PRB-9 F-SEP PRB-10 F-SEP PRB-11 F-SEP PRB-12 F-SEP
PRB-13 F-SEP PRB-14 F-SEP PRB-15 F-SEP PRB-16 F-SEP PRB-17 F-SEP PRB-18 F-SEP
PRB-19 F-SEP PRB-20 F-SEP PRB-21 F-SEP PRB-22 F-SEP PRB-23 F-SEP PRB-24 F-SEP
PRB-25 F-SEP PRB-26 F-SEP PRB-27 F-SEP PRB-28

PRC := PRC-1 F-SEP PRC-2 F-SEP PRC-3 F-SEP PRC-4 F-SEP PRC-5 F-SEP PRC-6 F-SEP
PRC-7 F-SEP PRC-8 F-SEP PRC-9 F-SEP PRC-10 F-SEP PRC-11 F-SEP PRC-12 F-SEP
PRC-13 F-SEP PRC-14 F-SEP PRC-15 F-SEP PRC-16 F-SEP PRC-17 F-SEP PRC-18

PRD := PRD-1 F-SEP PRD-2 F-SEP PRD-3 F-SEP PRD-4 F-SEP PRD-5 F-SEP PRD-6 F-SEP
PRD-7 F-SEP PRD-8 F-SEP PRD-9 F-SEP PRD-10 F-SEP PRD-11 F-SEP PRD-12 F-SEP
PRD-13 F-SEP PRD-14

PRT := PRT-1 F-SEP PRT-2 F-SEP PRT-3 F-SEP PRT-4 F-SEP PRT-5 F-SEP PRT-6 F-SEP
PRT-7 F-SEP PRT-8 F-SEP PRT-9 F-SEP PRT-10 F-SEP PRT-11 F-SEP PRT-12 F-SEP
PRT-13 F-SEP PRT-14 F-SEP PRT-15 F-SEP PRT-16 F-SEP PRT-17 F-SEP PRT-18 F-SEP
PRT-19 F-SEP PRT-20 F-SEP PRT-21 F-SEP PRT-22

PSG := PSG-1 F-SEP PSG-2 F-SEP PSG-3 F-SEP PSG-4 F-SEP PSG-5 F-SEP PSG-6

PSH := PSH-1 F-SEP PSH-2 F-SEP PSH-3 F-SEP PSH-4 F-SEP PSH-5 F-SEP PSH-6 F-SEP
PSH-7 F-SEP PSH-8 F-SEP PSH-9 F-SEP PSH-10 F-SEP PSH-11 F-SEP PSH-12 F-SEP
PSH-13 F-SEP PSH-14

PSL := PSL-1 F-SEP PSL-2 F-SEP PSL-3 F-SEP PSL-4 F-SEP PSL-5 F-SEP PSL-6 F-SEP
PSL-7 F-SEP PSL-8 F-SEP PSL-9 F-SEP PSL-10 F-SEP PSL-11 F-SEP PSL-12 F-SEP
PSL-13 F-SEP PSL-14 F-SEP PSL-15 F-SEP PSL-16 F-SEP PSL-17 F-SEP PSL-18 F-SEP
PSL-19 F-SEP PSL-20 F-SEP PSL-21 F-SEP PSL-22 F-SEP PSL-23 F-SEP PSL-24 F-SEP
PSL-25 F-SEP PSL-26 F-SEP PSL-27 F-SEP PSL-28 F-SEP PSL-29 F-SEP PSL-30 F-SEP
PSL-31 F-SEP PSL-32 F-SEP PSL-33 F-SEP PSL-34 F-SEP PSL-35 F-SEP PSL-36 F-SEP
PSL-37 F-SEP PSL-38 F-SEP PSL-39 F-SEP PSL-40 F-SEP PSL-41 F-SEP PSL-42 F-SEP
PSL-43 F-SEP PSL-44 F-SEP PSL-45 F-SEP PSL-46 F-SEP PSL-47 F-SEP PSL-48

PSS := PSS-1 F-SEP PSS-2 F-SEP PSS-3 F-SEP PSS-4 F-SEP PSS-5

PTH := PTH-1 F-SEP PTH-2 F-SEP PTH-3 F-SEP PTH-4 F-SEP PTH-5 F-SEP PTH-6 F-SEP
PTH-7

PV1 := PV1-1 F-SEP PV1-2 F-SEP PV1-3 F-SEP PV1-4 F-SEP PV1-5 F-SEP PV1-6 F-SEP
PV1-7 F-SEP PV1-8 F-SEP PV1-9 F-SEP PV1-10 F-SEP PV1-11 F-SEP PV1-12 F-SEP
PV1-13 F-SEP PV1-14 F-SEP PV1-15 F-SEP PV1-16 F-SEP PV1-17 F-SEP PV1-18 F-SEP
PV1-19 F-SEP PV1-20 F-SEP PV1-21 F-SEP PV1-22 F-SEP PV1-23 F-SEP PV1-24 F-SEP
PV1-25 F-SEP PV1-26 F-SEP PV1-27 F-SEP PV1-28 F-SEP PV1-29 F-SEP PV1-30 F-SEP
PV1-31 F-SEP PV1-32 F-SEP PV1-33 F-SEP PV1-34 F-SEP PV1-35 F-SEP PV1-36 F-SEP
PV1-37 F-SEP PV1-38 F-SEP PV1-39 F-SEP PV1-40 F-SEP PV1-41 F-SEP PV1-42 F-SEP
PV1-43 F-SEP PV1-44 F-SEP PV1-45 F-SEP PV1-46 F-SEP PV1-47 F-SEP PV1-48 F-SEP
PV1-49 F-SEP PV1-50 F-SEP PV1-51 F-SEP PV1-52 F-SEP PV1-53 F-SEP PV1-54

PV2 := PV2-1 F-SEP PV2-2 F-SEP PV2-3 F-SEP PV2-4 F-SEP PV2-5 F-SEP PV2-6 F-SEP
PV2-7 F-SEP PV2-8 F-SEP PV2-9 F-SEP PV2-10 F-SEP PV2-11 F-SEP PV2-12 F-SEP
PV2-13 F-SEP PV2-14 F-SEP PV2-15 F-SEP PV2-16 F-SEP PV2-17 F-SEP PV2-18 F-SEP
PV2-19 F-SEP PV2-20 F-SEP PV2-21 F-SEP PV2-22 F-SEP PV2-23 F-SEP PV2-24 F-SEP
PV2-25 F-SEP PV2-26 F-SEP PV2-27 F-SEP PV2-28 F-SEP PV2-29 F-SEP PV2-30 F-SEP
PV2-31 F-SEP PV2-32 F-SEP PV2-33 F-SEP PV2-34 F-SEP PV2-35 F-SEP PV2-36 F-SEP
PV2-37 F-SEP PV2-38 F-SEP PV2-39 F-SEP PV2-40 F-SEP PV2-41 F-SEP PV2-42 F-SEP
PV2-43 F-SEP PV2-44 F-SEP PV2-45 F-SEP PV2-46 F-SEP PV2-47 F-SEP PV2-48 F-SEP
PV2-49 F-SEP PV2-50

PYE := PYE-1 F-SEP PYE-2 F-SEP PYE-3 F-SEP PYE-4 F-SEP PYE-5 F-SEP PYE-6 F-SEP
PYE-7

QAK := QAK-1 F-SEP QAK-2 F-SEP QAK-3 F-SEP QAK-4 F-SEP QAK-5 F-SEP QAK-6

QID := QID-1 F-SEP QID-2

QPD := QPD-1 F-SEP QPD-2 F-SEP QPD-3

QRI := QRI-1 F-SEP QRI-2 F-SEP QRI-3

Appendix C: BNF Message Descriptions

RCP := RCP-1 F-SEP RCP-2 F-SEP RCP-3 F-SEP RCP-4 F-SEP RCP-5 F-SEP RCP-6 F-SEP RCP-7

RDF := RDF-1 F-SEP RDF-2

RDT := RDT-1

REL := REL-1 F-SEP REL-2 F-SEP REL-3 F-SEP REL-4 F-SEP REL-5 F-SEP REL-6 F-SEP REL-7 F-SEP REL-8 F-SEP REL-9 F-SEP REL-10 F-SEP REL-11 F-SEP REL-12 F-SEP REL-13 F-SEP REL-14 F-SEP REL-15 F-SEP REL-16

RF1 := RF1-1 F-SEP RF1-2 F-SEP RF1-3 F-SEP RF1-4 F-SEP RF1-5 F-SEP RF1-6 F-SEP RF1-7 F-SEP RF1-8 F-SEP RF1-9 F-SEP RF1-10 F-SEP RF1-11 F-SEP RF1-12 F-SEP RF1-13 F-SEP RF1-14 F-SEP RF1-15 F-SEP RF1-16 F-SEP RF1-17 F-SEP RF1-18 F-SEP RF1-19 F-SEP RF1-20 F-SEP RF1-21 F-SEP RF1-22 F-SEP RF1-23 F-SEP RF1-24 F-SEP RF1-25

RFI := RFI-1 F-SEP RFI-2 F-SEP RFI-3 F-SEP RFI-4

RGS := RGS-1 F-SEP RGS-2 F-SEP RGS-3

RMI := RMI-1 F-SEP RMI-2 F-SEP RMI-3

ROL := ROL-1 F-SEP ROL-2 F-SEP ROL-3 F-SEP ROL-4 F-SEP ROL-5 F-SEP ROL-6 F-SEP ROL-7 F-SEP ROL-8 F-SEP ROL-9 F-SEP ROL-10 F-SEP ROL-11 F-SEP ROL-12 F-SEP ROL-13 F-SEP ROL-14

RQ1 := RQ1-1 F-SEP RQ1-2 F-SEP RQ1-3 F-SEP RQ1-4 F-SEP RQ1-5 F-SEP RQ1-6 F-SEP RQ1-7

RQD := RQD-1 F-SEP RQD-2 F-SEP RQD-3 F-SEP RQD-4 F-SEP RQD-5 F-SEP RQD-6 F-SEP RQD-7 F-SEP RQD-8 F-SEP RQD-9 F-SEP RQD-10

RXA := RXA-1 F-SEP RXA-2 F-SEP RXA-3 F-SEP RXA-4 F-SEP RXA-5 F-SEP RXA-6 F-SEP RXA-7 F-SEP RXA-8 F-SEP RXA-9 F-SEP RXA-10 F-SEP RXA-11 F-SEP RXA-12 F-SEP RXA-13 F-SEP RXA-14 F-SEP RXA-15 F-SEP RXA-16 F-SEP RXA-17 F-SEP RXA-18 F-SEP RXA-19 F-SEP RXA-20 F-SEP RXA-21 F-SEP RXA-22 F-SEP RXA-23 F-SEP RXA-24 F-SEP RXA-25 F-SEP RXA-26 F-SEP RXA-27 F-SEP RXA-28 F-SEP RXA-29

RXC := RXC-1 F-SEP RXC-2 F-SEP RXC-3 F-SEP RXC-4 F-SEP RXC-5 F-SEP RXC-6 F-SEP RXC-7 F-SEP RXC-8 F-SEP RXC-9 F-SEP RXC-10 F-SEP RXC-11

RXD := RXD-1 F-SEP RXD-2 F-SEP RXD-3 F-SEP RXD-4 F-SEP RXD-5 F-SEP RXD-6 F-SEP RXD-7 F-SEP RXD-8 F-SEP RXD-9 F-SEP RXD-10 F-SEP RXD-11 F-SEP RXD-12 F-SEP

RXD-13 F-SEP RXD-14 F-SEP RXD-15 F-SEP RXD-16 F-SEP RXD-17 F-SEP RXD-18 F-SEP
RXD-19 F-SEP RXD-20 F-SEP RXD-21 F-SEP RXD-22 F-SEP RXD-23 F-SEP RXD-24 F-SEP
RXD-25 F-SEP RXD-26 F-SEP RXD-27 F-SEP RXD-28 F-SEP RXD-29 F-SEP RXD-30 F-SEP
RXD-31 F-SEP RXD-32 F-SEP RXD-33 F-SEP RXD-34 F-SEP RXD-35

RXE := RXE-1 F-SEP RXE-2 F-SEP RXE-3 F-SEP RXE-4 F-SEP RXE-5 F-SEP RXE-6 F-SEP
RXE-7 F-SEP RXE-8 F-SEP RXE-9 F-SEP RXE-10 F-SEP RXE-11 F-SEP RXE-12 F-SEP
RXE-13 F-SEP RXE-14 F-SEP RXE-15 F-SEP RXE-16 F-SEP RXE-17 F-SEP RXE-18 F-SEP
RXE-19 F-SEP RXE-20 F-SEP RXE-21 F-SEP RXE-22 F-SEP RXE-23 F-SEP RXE-24 F-SEP
RXE-25 F-SEP RXE-26 F-SEP RXE-27 F-SEP RXE-28 F-SEP RXE-29 F-SEP RXE-30 F-SEP
RXE-31 F-SEP RXE-32 F-SEP RXE-33 F-SEP RXE-34 F-SEP RXE-35 F-SEP RXE-36 F-SEP
RXE-37 F-SEP RXE-38 F-SEP RXE-39 F-SEP RXE-40 F-SEP RXE-41 F-SEP RXE-42 F-SEP
RXE-43 F-SEP RXE-44 F-SEP RXE-45

RXG := RXG-1 F-SEP RXG-2 F-SEP RXG-3 F-SEP RXG-4 F-SEP RXG-5 F-SEP RXG-6 F-SEP
RXG-7 F-SEP RXG-8 F-SEP RXG-9 F-SEP RXG-10 F-SEP RXG-11 F-SEP RXG-12 F-SEP
RXG-13 F-SEP RXG-14 F-SEP RXG-15 F-SEP RXG-16 F-SEP RXG-17 F-SEP RXG-18 F-SEP
RXG-19 F-SEP RXG-20 F-SEP RXG-21 F-SEP RXG-22 F-SEP RXG-23 F-SEP RXG-24 F-SEP
RXG-25 F-SEP RXG-26 F-SEP RXG-27 F-SEP RXG-28 F-SEP RXG-29 F-SEP RXG-30 F-SEP
RXG-31 F-SEP RXG-32 F-SEP RXG-33

RXO := RXO-1 F-SEP RXO-2 F-SEP RXO-3 F-SEP RXO-4 F-SEP RXO-5 F-SEP RXO-6 F-SEP
RXO-7 F-SEP RXO-8 F-SEP RXO-9 F-SEP RXO-10 F-SEP RXO-11 F-SEP RXO-12 F-SEP
RXO-13 F-SEP RXO-14 F-SEP RXO-15 F-SEP RXO-16 F-SEP RXO-17 F-SEP RXO-18 F-SEP
RXO-19 F-SEP RXO-20 F-SEP RXO-21 F-SEP RXO-22 F-SEP RXO-23 F-SEP RXO-24 F-SEP
RXO-25 F-SEP RXO-26 F-SEP RXO-27 F-SEP RXO-28 F-SEP RXO-29 F-SEP RXO-30 F-SEP
RXO-31 F-SEP RXO-32 F-SEP RXO-33 F-SEP RXO-34 F-SEP RXO-35 F-SEP RXO-36

RXR := RXR-1 F-SEP RXR-2 F-SEP RXR-3 F-SEP RXR-4 F-SEP RXR-5 F-SEP RXR-6

RXV := RXV-1 F-SEP RXV-2 F-SEP RXV-3 F-SEP RXV-4 F-SEP RXV-5 F-SEP RXV-6 F-SEP
RXV-7 F-SEP RXV-8 F-SEP RXV-9 F-SEP RXV-10 F-SEP RXV-11 F-SEP RXV-12 F-SEP
RXV-13 F-SEP RXV-14 F-SEP RXV-15 F-SEP RXV-16 F-SEP RXV-17 F-SEP RXV-18 F-SEP
RXV-19 F-SEP RXV-20 F-SEP RXV-21 F-SEP RXV-22

SAC := SAC-1 F-SEP SAC-2 F-SEP SAC-3 F-SEP SAC-4 F-SEP SAC-5 F-SEP SAC-6 F-SEP
SAC-7 F-SEP SAC-8 F-SEP SAC-9 F-SEP SAC-10 F-SEP SAC-11 F-SEP SAC-12 F-SEP
SAC-13 F-SEP SAC-14 F-SEP SAC-15 F-SEP SAC-16 F-SEP SAC-17 F-SEP SAC-18 F-SEP
SAC-19 F-SEP SAC-20 F-SEP SAC-21 F-SEP SAC-22 F-SEP SAC-23 F-SEP SAC-24 F-SEP
SAC-25 F-SEP SAC-26 F-SEP SAC-27 F-SEP SAC-28 F-SEP SAC-29 F-SEP SAC-30 F-SEP
SAC-31 F-SEP SAC-32 F-SEP SAC-33 F-SEP SAC-34 F-SEP SAC-35 F-SEP SAC-36 F-SEP
SAC-37 F-SEP SAC-38 F-SEP SAC-39 F-SEP SAC-40 F-SEP SAC-41 F-SEP SAC-42 F-SEP
SAC-43 F-SEP SAC-44

SCD := SCD-1 F-SEP SCD-2 F-SEP SCD-3 F-SEP SCD-4 F-SEP SCD-5 F-SEP SCD-6 F-SEP
SCD-7 F-SEP SCD-8 F-SEP SCD-9 F-SEP SCD-10 F-SEP SCD-11 F-SEP SCD-12 F-SEP
SCD-13 F-SEP SCD-14 F-SEP SCD-15 F-SEP SCD-16 F-SEP SCD-17 F-SEP SCD-18 F-SEP
SCD-19 F-SEP SCD-20 F-SEP SCD-21 F-SEP SCD-22 F-SEP SCD-23 F-SEP SCD-24 F-SEP
SCD-25 F-SEP SCD-26 F-SEP SCD-27 F-SEP SCD-28 F-SEP SCD-29 F-SEP SCD-30 F-SEP
SCD-31 F-SEP SCD-32 F-SEP SCD-33 F-SEP SCD-34 F-SEP SCD-35 F-SEP SCD-36 F-SEP
SCD-37

Appendix C: BNF Message Descriptions

SCH := SCH-1 F-SEP SCH-2 F-SEP SCH-3 F-SEP SCH-4 F-SEP SCH-5 F-SEP SCH-6 F-SEP
SCH-7 F-SEP SCH-8 F-SEP SCH-9 F-SEP SCH-10 F-SEP SCH-11 F-SEP SCH-12 F-SEP
SCH-13 F-SEP SCH-14 F-SEP SCH-15 F-SEP SCH-16 F-SEP SCH-17 F-SEP SCH-18 F-SEP
SCH-19 F-SEP SCH-20 F-SEP SCH-21 F-SEP SCH-22 F-SEP SCH-23 F-SEP SCH-24 F-SEP
SCH-25 F-SEP SCH-26 F-SEP SCH-27

SCP := SCP-1 F-SEP SCP-2 F-SEP SCP-3 F-SEP SCP-4 F-SEP SCP-5 F-SEP SCP-6 F-SEP
SCP-7 F-SEP SCP-8

SDD := SDD-1 F-SEP SDD-2 F-SEP SDD-3 F-SEP SDD-4 F-SEP SDD-5 F-SEP SDD-6 F-SEP
SDD-7

SFT := SFT-1 F-SEP SFT-2 F-SEP SFT-3 F-SEP SFT-4 F-SEP SFT-5 F-SEP SFT-6

SGH := SGH-1 F-SEP SGH-2

SGT := SGT-1 F-SEP SGT-2

SHP := SHP-1 F-SEP SHP-2 F-SEP SHP-3 F-SEP SHP-4 F-SEP SHP-5 F-SEP SHP-6 F-SEP
SHP-7 F-SEP SHP-8 F-SEP SHP-9 F-SEP SHP-10 F-SEP SHP-11

SID := SID-1 F-SEP SID-2 F-SEP SID-3 F-SEP SID-4

SLT := SLT-1 F-SEP SLT-2 F-SEP SLT-3 F-SEP SLT-4 F-SEP SLT-5

SPM := SPM-1 F-SEP SPM-2 F-SEP SPM-3 F-SEP SPM-4 F-SEP SPM-5 F-SEP SPM-6 F-SEP
SPM-7 F-SEP SPM-8 F-SEP SPM-9 F-SEP SPM-10 F-SEP SPM-11 F-SEP SPM-12 F-SEP
SPM-13 F-SEP SPM-14 F-SEP SPM-15 F-SEP SPM-16 F-SEP SPM-17 F-SEP SPM-18 F-SEP
SPM-19 F-SEP SPM-20 F-SEP SPM-21 F-SEP SPM-22 F-SEP SPM-23 F-SEP SPM-24 F-SEP
SPM-25 F-SEP SPM-26 F-SEP SPM-27 F-SEP SPM-28 F-SEP SPM-29 F-SEP SPM-30 F-SEP
SPM-31 F-SEP SPM-32

STF := STF-1 F-SEP STF-2 F-SEP STF-3 F-SEP STF-4 F-SEP STF-5 F-SEP STF-6 F-SEP
STF-7 F-SEP STF-8 F-SEP STF-9 F-SEP STF-10 F-SEP STF-11 F-SEP STF-12 F-SEP
STF-13 F-SEP STF-14 F-SEP STF-15 F-SEP STF-16 F-SEP STF-17 F-SEP STF-18 F-SEP
STF-19 F-SEP STF-20 F-SEP STF-21 F-SEP STF-22 F-SEP STF-23 F-SEP STF-24 F-SEP
STF-25 F-SEP STF-26 F-SEP STF-27 F-SEP STF-28 F-SEP STF-29 F-SEP STF-30 F-SEP
STF-31 F-SEP STF-32 F-SEP STF-33 F-SEP STF-34 F-SEP STF-35 F-SEP STF-36 F-SEP
STF-37 F-SEP STF-38 F-SEP STF-39 F-SEP STF-40 F-SEP STF-41

STZ := STZ-1 F-SEP STZ-2 F-SEP STZ-3 F-SEP STZ-4

TCC := TCC-1 F-SEP TCC-2 F-SEP TCC-3 F-SEP TCC-4 F-SEP TCC-5 F-SEP TCC-6 F-SEP
TCC-7 F-SEP TCC-8 F-SEP TCC-9 F-SEP TCC-10 F-SEP TCC-11 F-SEP TCC-12 F-SEP
TCC-13 F-SEP TCC-14 F-SEP TCC-15

TCD := TCD-1 F-SEP TCD-2 F-SEP TCD-3 F-SEP TCD-4 F-SEP TCD-5 F-SEP TCD-6 F-SEP
TCD-7 F-SEP TCD-8

TQ1 := TQ1-1 F-SEP TQ1-2 F-SEP TQ1-3 F-SEP TQ1-4 F-SEP TQ1-5 F-SEP TQ1-6 F-SEP
TQ1-7 F-SEP TQ1-8 F-SEP TQ1-9 F-SEP TQ1-10 F-SEP TQ1-11 F-SEP TQ1-12 F-SEP
TQ1-13 F-SEP TQ1-14

TQ2 := TQ2-1 F-SEP TQ2-2 F-SEP TQ2-3 F-SEP TQ2-4 F-SEP TQ2-5 F-SEP TQ2-6 F-SEP
TQ2-7 F-SEP TQ2-8 F-SEP TQ2-9 F-SEP TQ2-10

TXA := TXA-1 F-SEP TXA-2 F-SEP TXA-3 F-SEP TXA-4 F-SEP TXA-5 F-SEP TXA-6 F-SEP
TXA-7 F-SEP TXA-8 F-SEP TXA-9 F-SEP TXA-10 F-SEP TXA-11 F-SEP TXA-12 F-SEP
TXA-13 F-SEP TXA-14 F-SEP TXA-15 F-SEP TXA-16 F-SEP TXA-17 F-SEP TXA-18 F-SEP
TXA-19 F-SEP TXA-20 F-SEP TXA-21 F-SEP TXA-22 F-SEP TXA-23 F-SEP TXA-24 F-SEP
TXA-25 F-SEP TXA-26

UAC := UAC-1 F-SEP UAC-2

UB1 := UB1-1 F-SEP UB1-2 F-SEP UB1-3 F-SEP UB1-4 F-SEP UB1-5 F-SEP UB1-6 F-SEP
UB1-7 F-SEP UB1-8 F-SEP UB1-9 F-SEP UB1-10 F-SEP UB1-11 F-SEP UB1-12 F-SEP
UB1-13 F-SEP UB1-14 F-SEP UB1-15 F-SEP UB1-16 F-SEP UB1-17 F-SEP UB1-18 F-SEP
UB1-19 F-SEP UB1-20 F-SEP UB1-21 F-SEP UB1-22 F-SEP UB1-23

UB2 := UB2-1 F-SEP UB2-2 F-SEP UB2-3 F-SEP UB2-4 F-SEP UB2-5 F-SEP UB2-6 F-SEP
UB2-7 F-SEP UB2-8 F-SEP UB2-9 F-SEP UB2-10 F-SEP UB2-11 F-SEP UB2-12 F-SEP
UB2-13 F-SEP UB2-14 F-SEP UB2-15 F-SEP UB2-16 F-SEP UB2-17

VAR := VAR-1 F-SEP VAR-2 F-SEP VAR-3 F-SEP VAR-4 F-SEP VAR-5 F-SEP VAR-6

VND := VND-1 F-SEP VND-2 F-SEP VND-3 F-SEP VND-4 F-SEP VND-5

F-SEP := MSH-1;