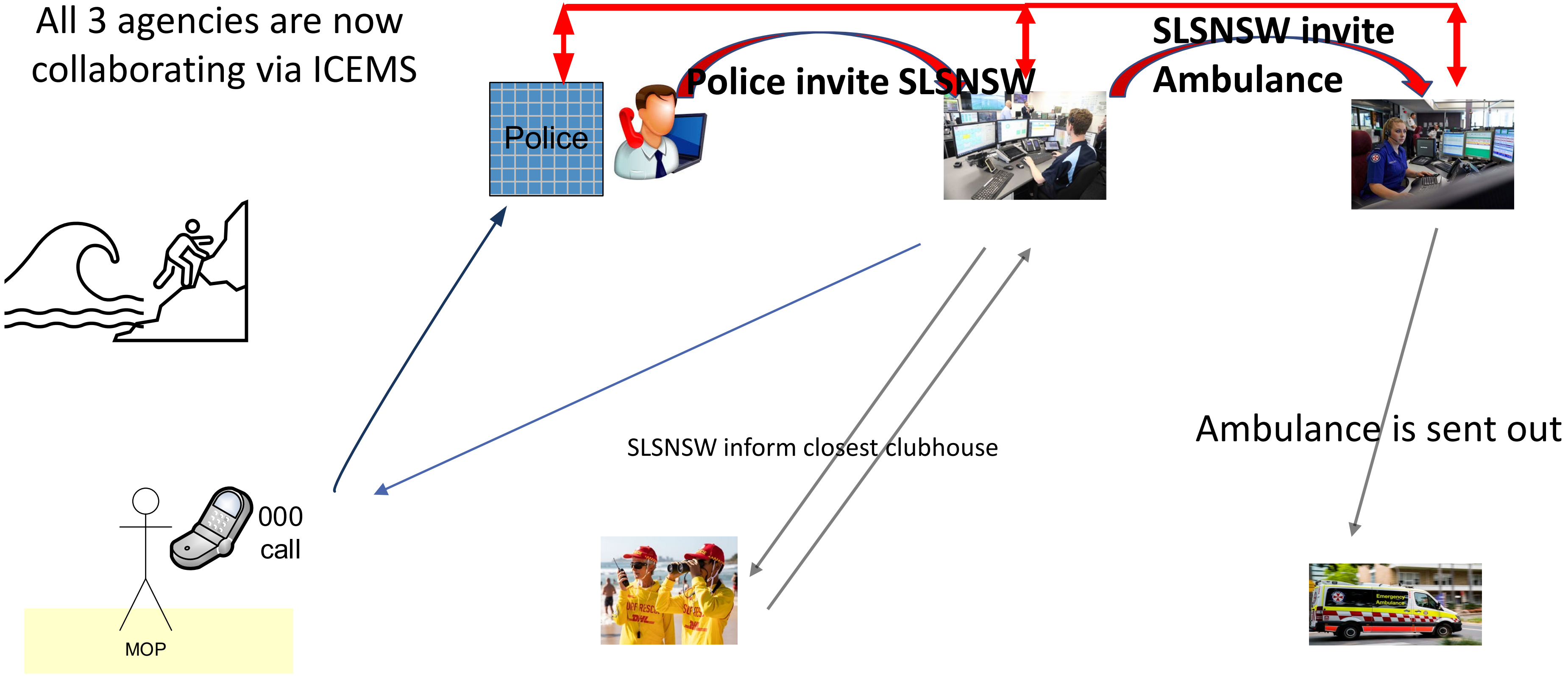
Key Findings

- Year on year, 13SURF (in) and Ambo Triple 000 (out) calls have increased to the point where system is under stress and calls have become too time consuming.
- ICEMS will provide faster, more accurate communications from Police to SOC and DOs.
- Information provided will be far broader and to an unprecedented depth eg Customer Service Data (Name, number and address) and AML (Lat/Long, Date and Time of positioning)
- SurfCom architecture is unknown, but it is clear many more fields will need to be added and some standards eg GPS, will need to be altered.
- No material change to SurfCom “skin” once implemented.
- A staged implementation would be preferable to smooth out any issues and minimise disruption to all agencies. EG Stage 1 – NSWPF; Stage 2 – ANSW, Stage 3 - Other Agencies
- NSWPF will require an MOU for initial implementation
- No issues with required VPN for network security and viability.
- Contractor identified who can build ICEMS Engine and Handler (System connections and messaging) for SurfCom
- SLSNSW needs to define its position on whether to invest in an updated SurfCom or move to a new IMS

A Scenario

All 3 agencies are now collaborating via ICEMS



Police

Police invite SLSNSW

SLSNSW invite Ambulance

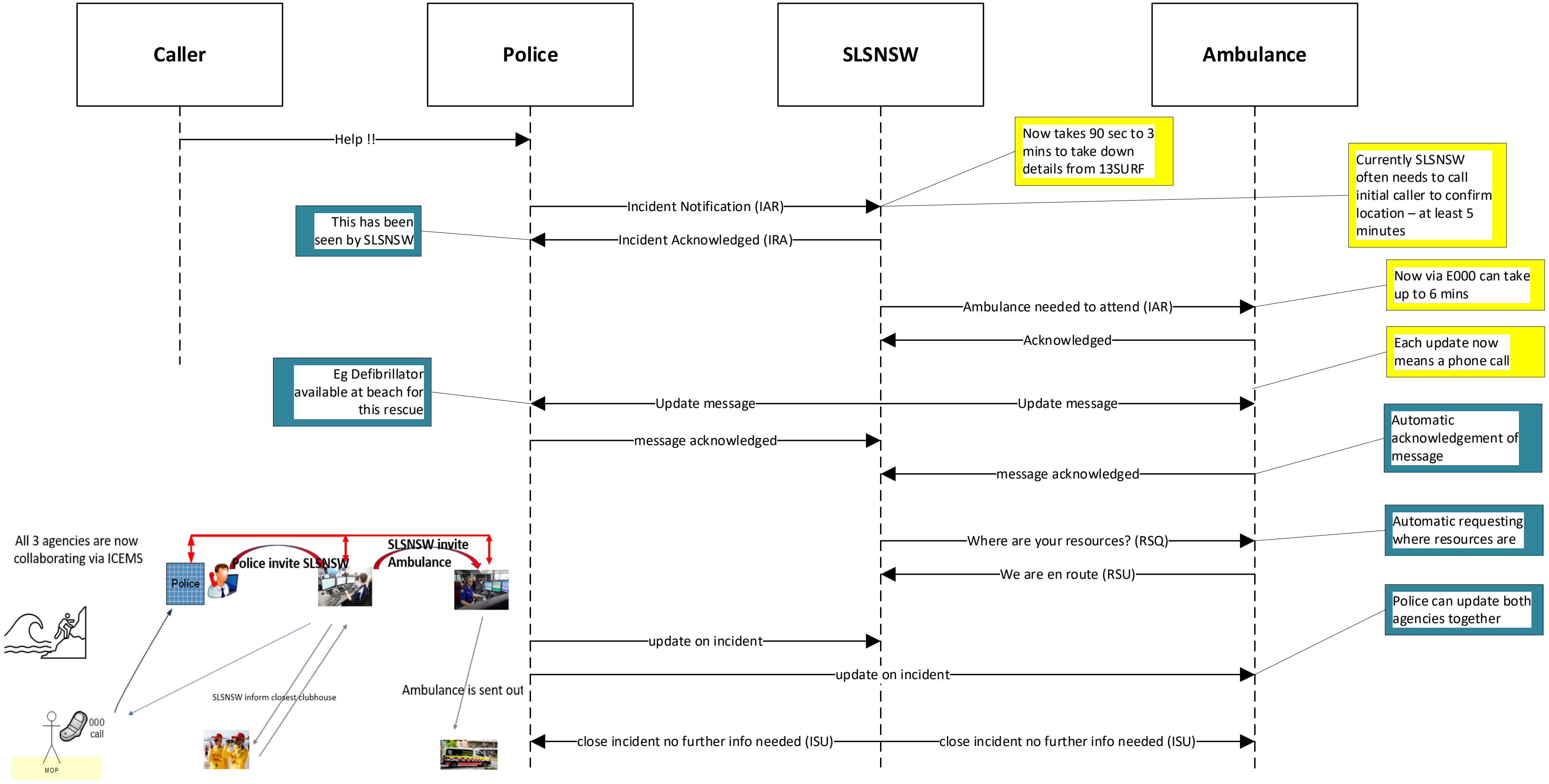
000 call

MOP

SLSNSW inform closest clubhouse

Ambulance is sent out

Workflow efficiency gains



Caller | **Police** | **SLSNSW** | **Ambulance**

Help !!

Now takes 90 sec to 3 mins to take down details from 13SURF

Incident Notification (IAR)

Currently SLSNSW often needs to call initial caller to confirm location – at least 5 minutes

This has been seen by SLSNSW

Incident Acknowledged (IRA)

Ambulance needed to attend (IAR)

Now via E000 can take up to 6 mins

Acknowledged

Each update now means a phone call

Eg Defibrillator available at beach for this rescue

Update message

Update message

message acknowledged

Automatic acknowledgement of message

message acknowledged

Where are your resources? (RSQ)

Automatic requesting where resources are

We are en route (RSU)

update on incident

Police can update both agencies together

update on incident

close incident no further info needed (ISU)

close incident no further info needed (ISU)

All 3 agencies are now collaborating via ICEMS

Police
Police invite SLSNSW
SLSNSW invite Ambulance
000 call
MOP
SLSNSW inform closest clubhouse
Ambulance is sent out

Potential time saved

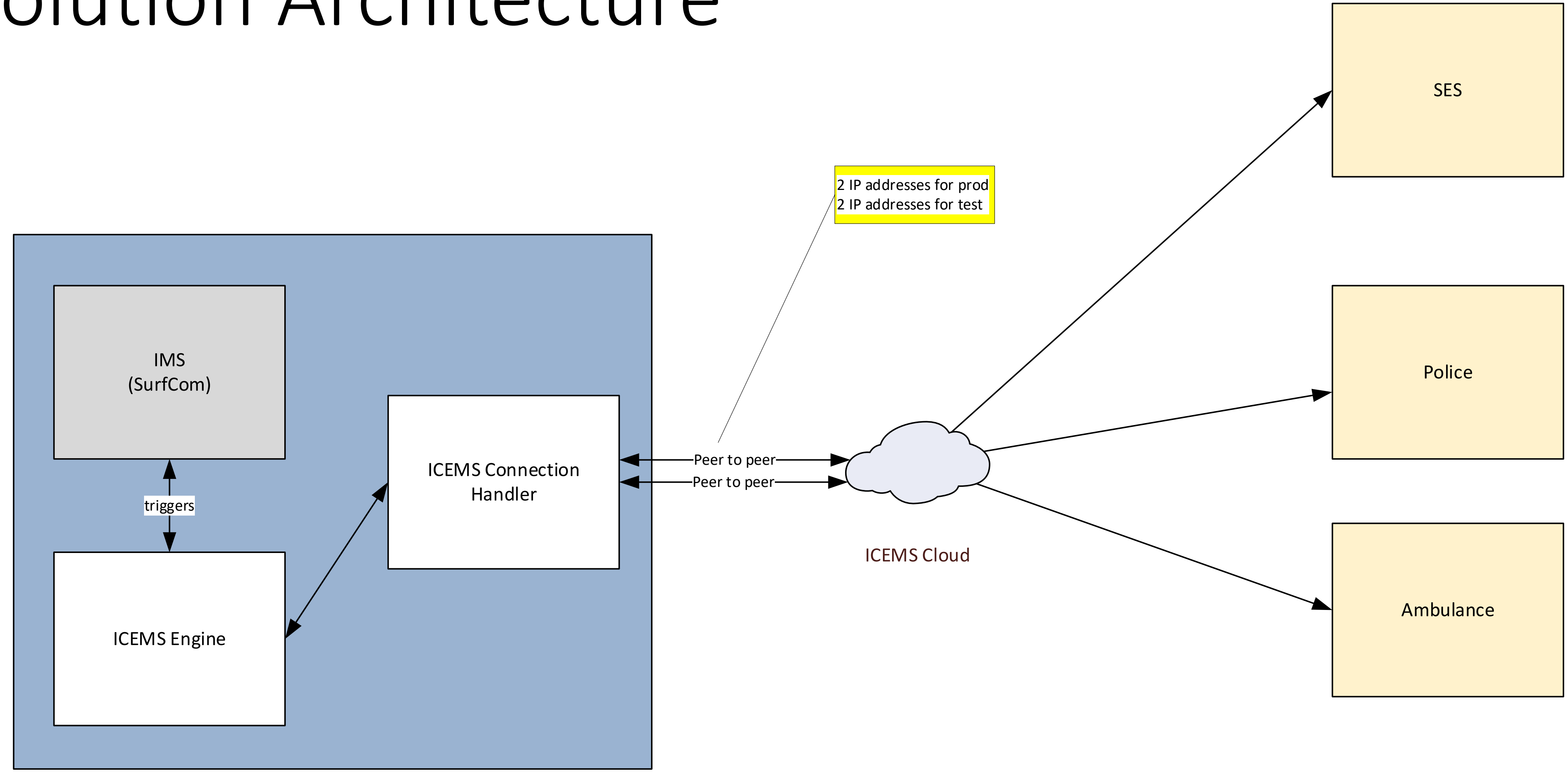
3 minutes

8 minutes

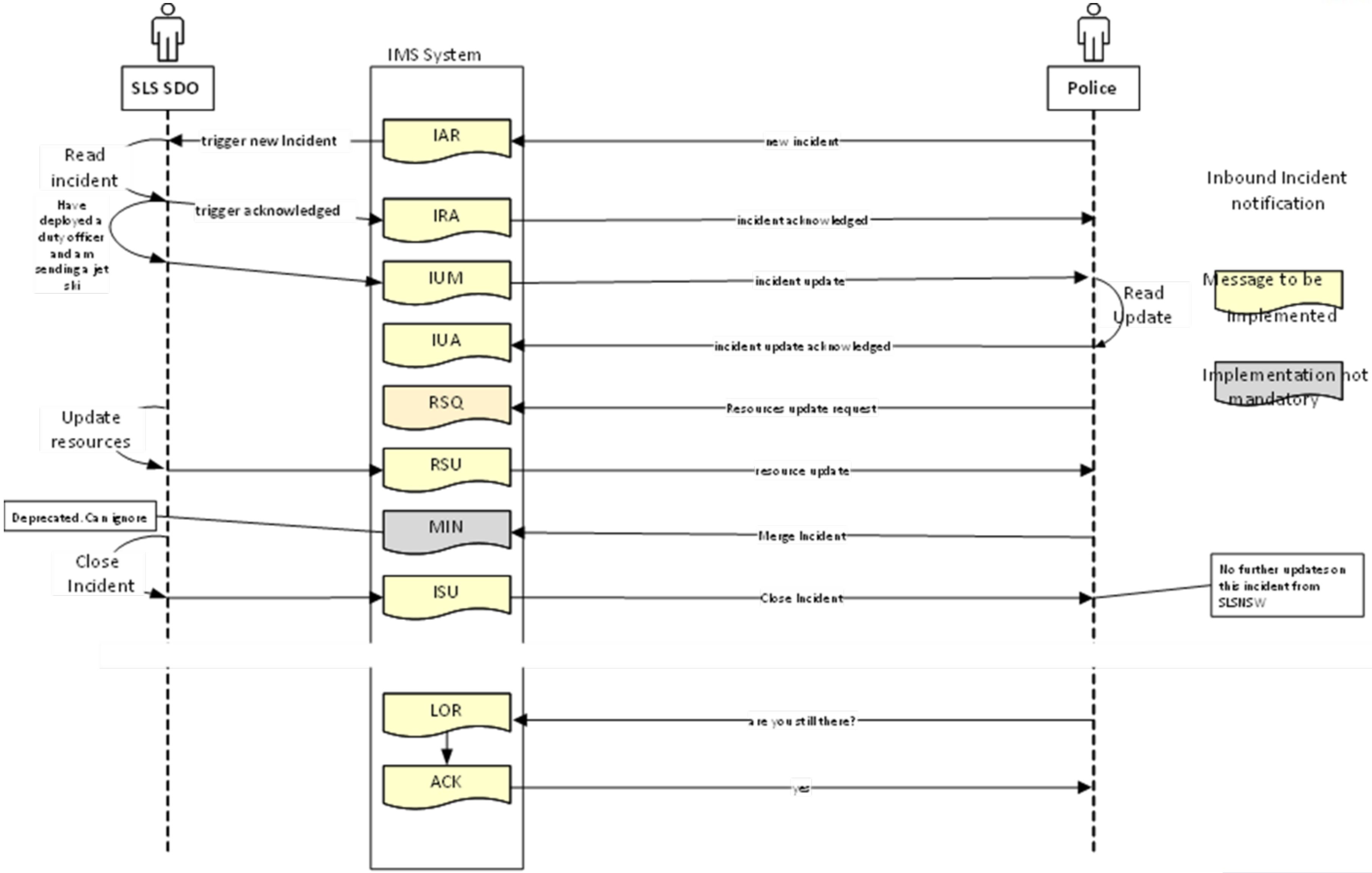
14 minutes

17 minutes

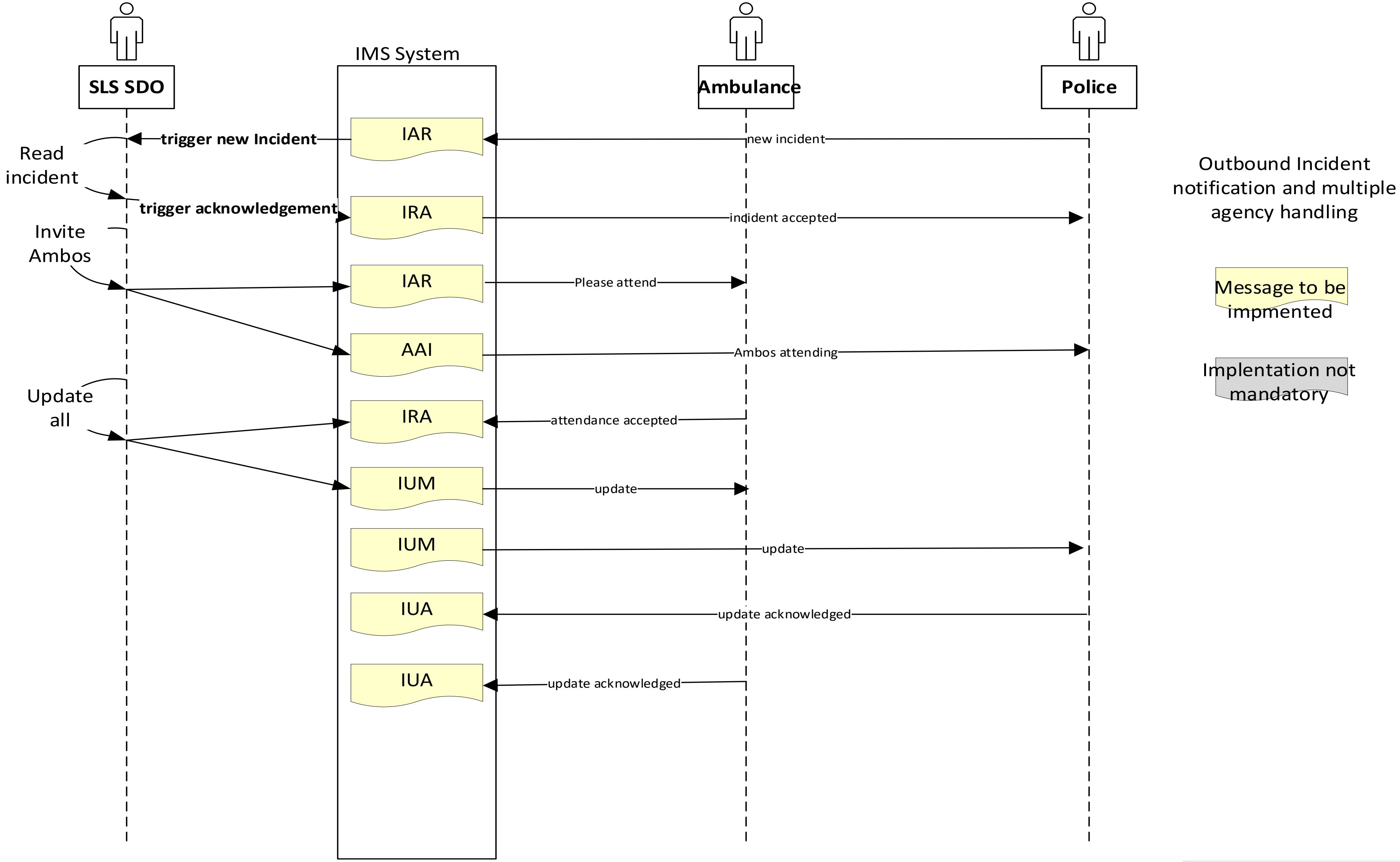
Solution Architecture


SES
2 IP addresses for prod
2 IP addresses for test
IMS
(SurfCom)
ICEMS Connection Handler
Police
Peer to peer
Peer to peer
triggers
ICEMS Cloud
Ambulance
ICEMS Engine

Incoming Incident


SLS SDO
IMS System
Police
trigger new Incident
IAR
new incident
Read incident
trigger acknowledged
IRA
incident acknowledged
Have deployed a duty officer and am sending a jet ski
IUM
incident update
Read Update
IUA
incident update acknowledged
RSQ
Resources update request
Update resources
RSU
resource update
Deprecated. Can ignore
MIN
Merge Incident
Close Incident
ISU
Close Incident
No further updates on this incident from SLSNSW
LOR
are you still there?
ACK
yes
Inbound Incident notification
Message to be implemented
Implementation not mandatory

Adding an Agency



SLS SDO

IMS System

Ambulance

Police

Read incident

trigger new Incident

IAR

new incident

trigger acknowledgement

IRA

incident accepted

Invite Ambos

IAR

Please attend

AAI

Ambos attending

Update all

IRA

attendance accepted

IUM

update

IUM

update

IUA

update acknowledged

IUA

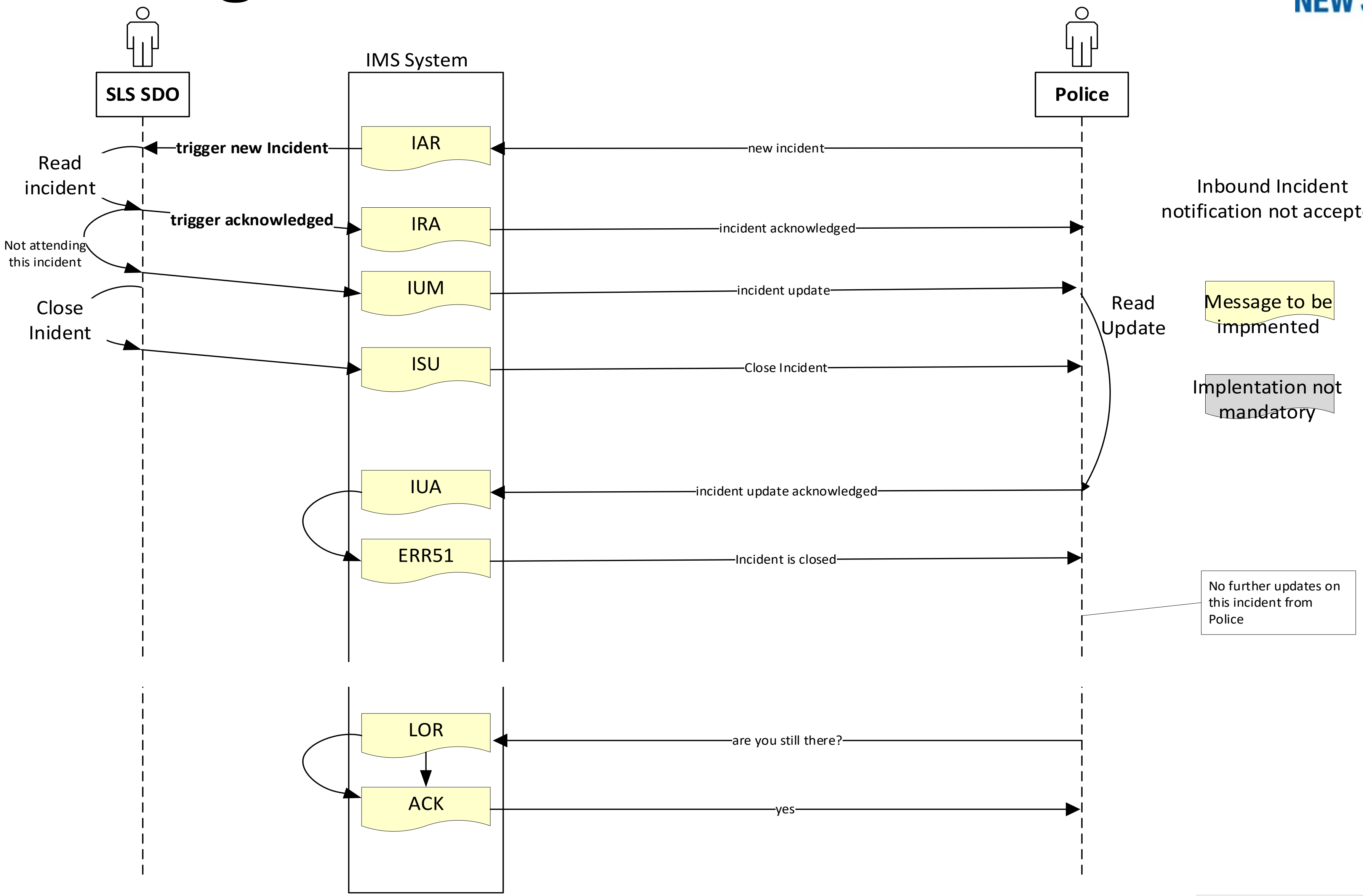
update acknowledged

Outbound Incident notification and multiple agency handling

Message to be impmented

Implentation not mandatory

Declining an Incident



IMS System

SLS SDO

Police

Read incident

trigger new Incident

IAR

new incident

Inbound Incident notification not accepted

trigger acknowledged

IRA

incident acknowledged

Not attending this incident

IUM

incident update

Read Update

Message to be impmented

Close Inident

ISU

Close Incident

Implentation not mandatory

IUA

incident update acknowledged

ERR51

Incident is closed

No further updates on this incident from Police

LOR

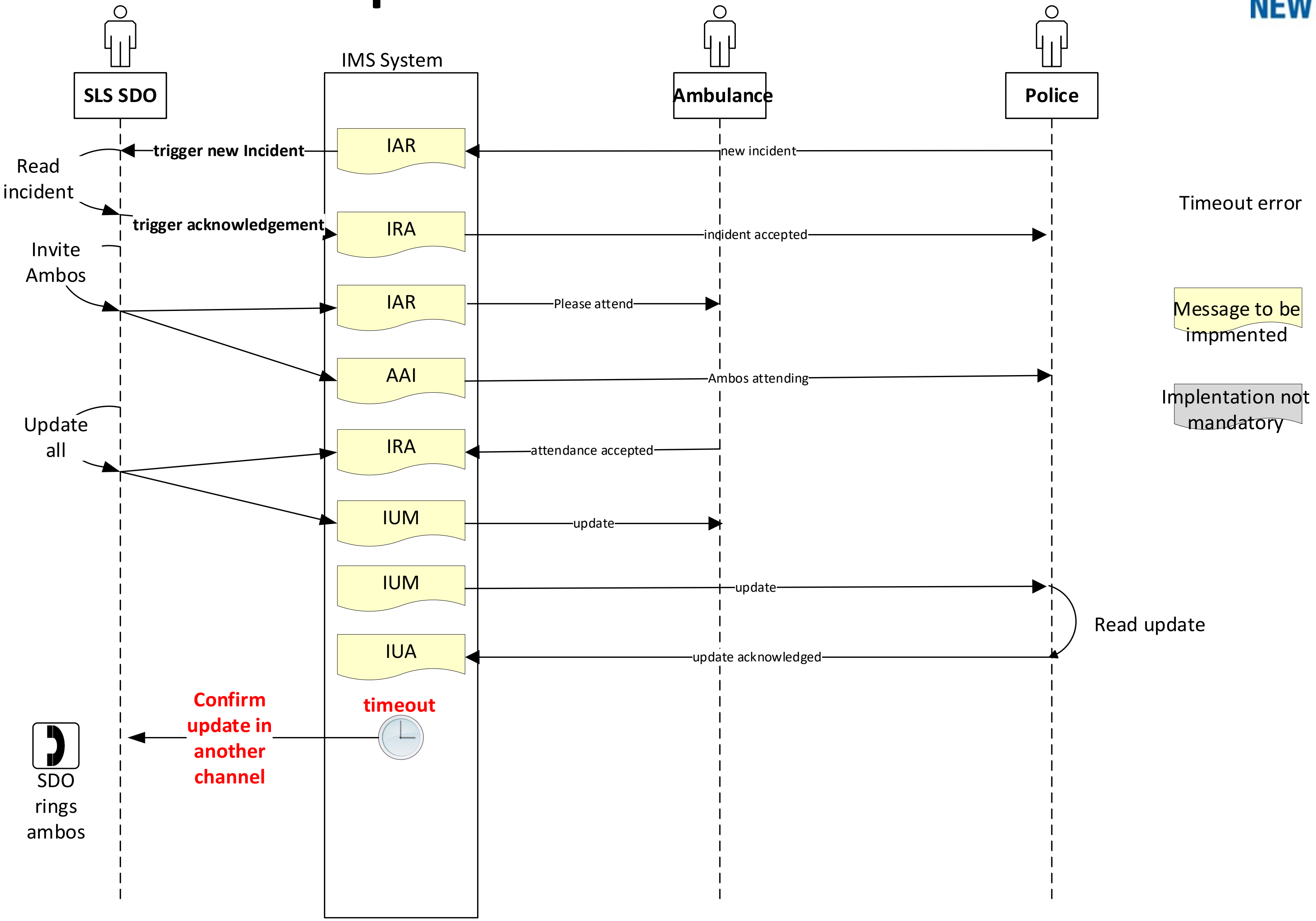
are you still there?

ACK

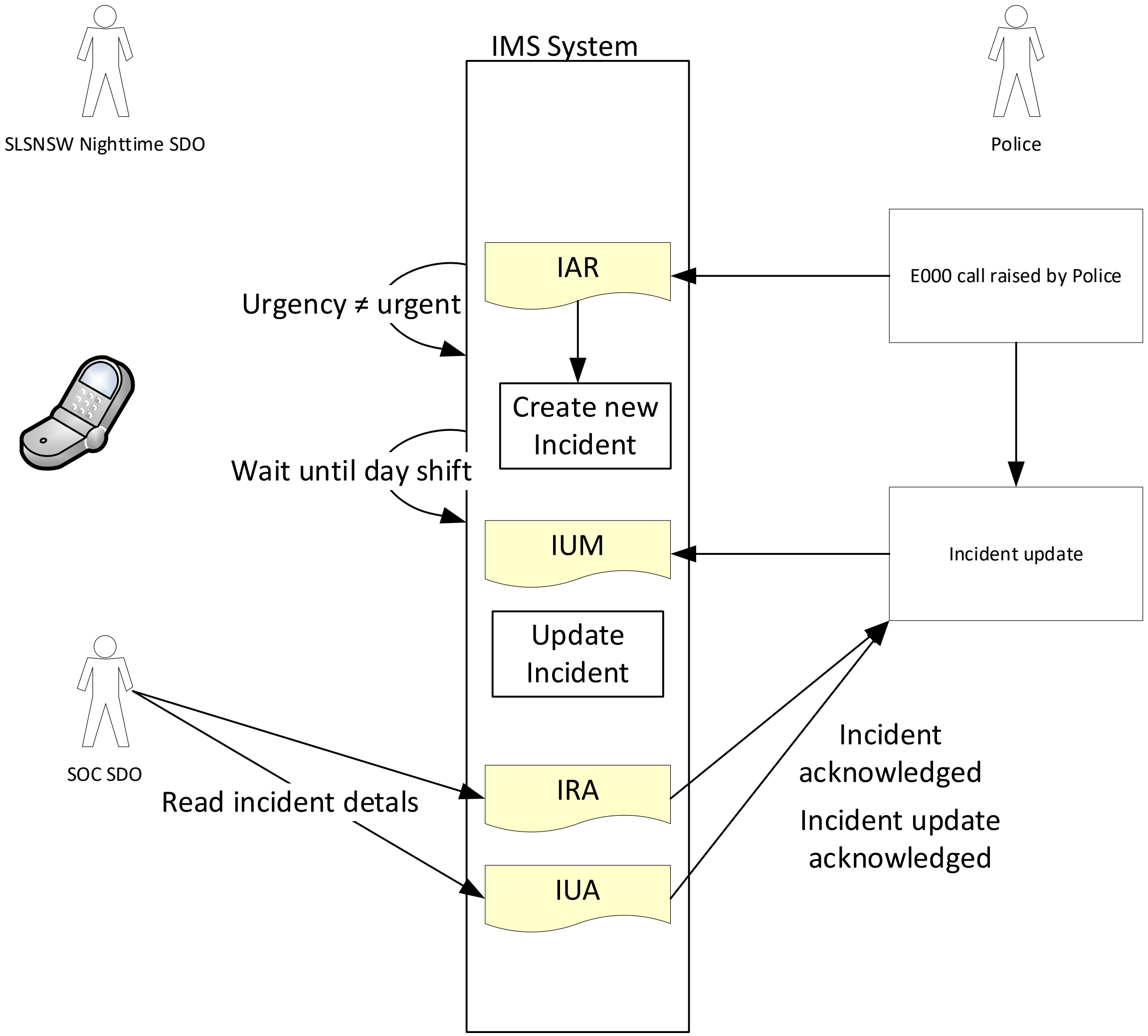
yes

Timed-out Response

SURF LIFE SAVING
NEW SOUTH WALES


SLS SDO
IMS System
Ambulance
Police
IAR
trigger new Incident
new incident
Read incident
trigger acknowledgement
IRA
incident accepted
Invite Ambos
IAR
Please attend
AAI
Ambos attending
Update all
IRA
attendance accepted
IUM
update
IUM
update
Read update
IUA
update acknowledged
timeout
Confirm update in another channel
SDO rings ambos
Timeout error
Message to be impmented
Implentation not mandatory

Issue – SLS SOC is unmanned at night
Non-urgent incidents



SLSNSW Nighttime SDO

IMS System

Police

E000 call raised by Police

IAR

Urgency ≠ urgent

Create new Incident

Wait until day shift

Incident update

IUM

Update Incident

SOC SDO

Read incident detals

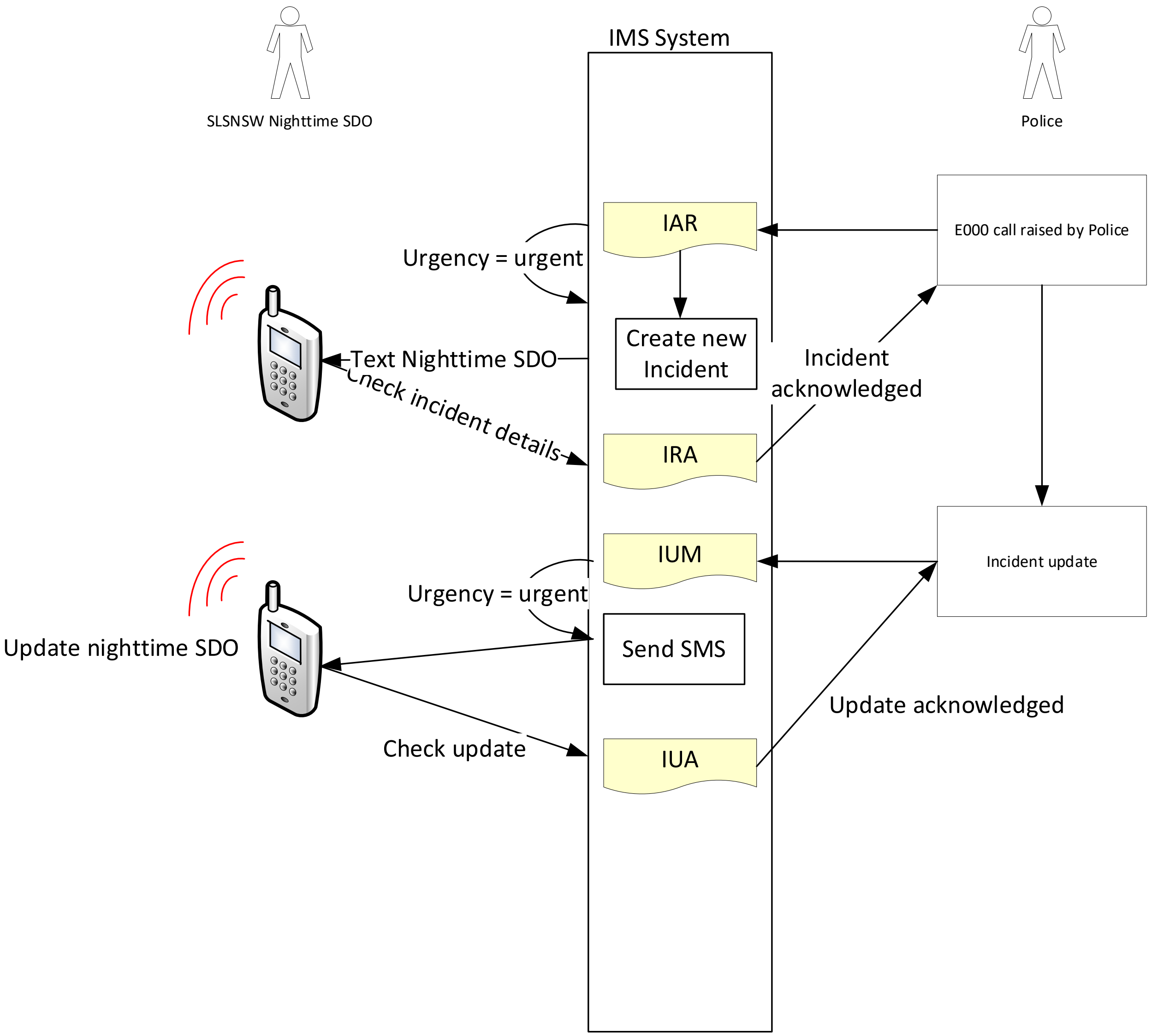
IRA

IUA

Incident acknowledged

Incident update acknowledged

Issue – SLS SOC is unmanned at night
Urgent Incidents



SLSNSW Nighttime SDO

IMS System

Police

IAR

E000 call raised by Police

Urgency = urgent

Create new Incident

Text Nighttime SDO

Check incident details

Incident acknowledged

IRA

IUM

Incident update

Urgency = urgent

Send SMS

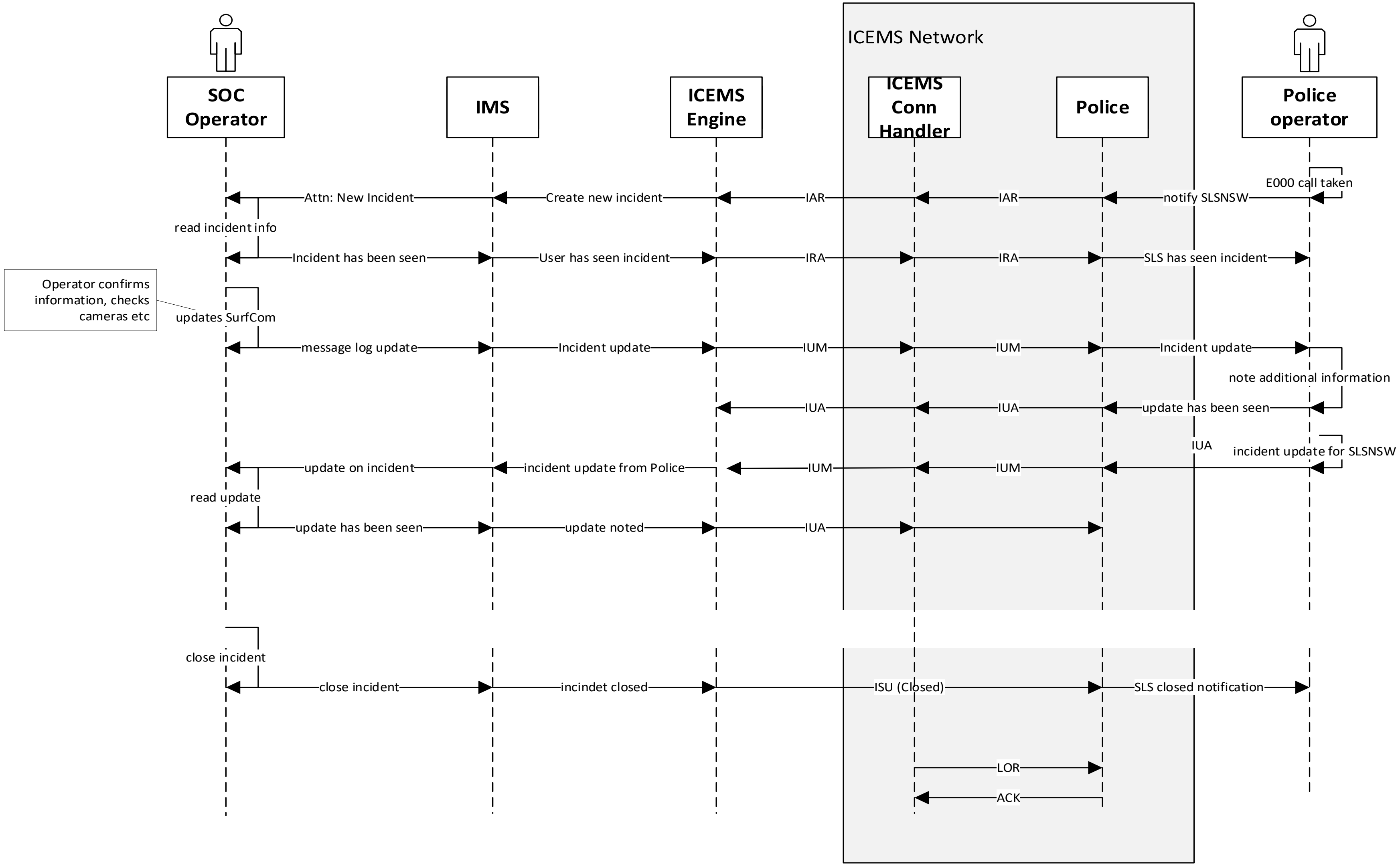
Update nighttime SDO

Check update

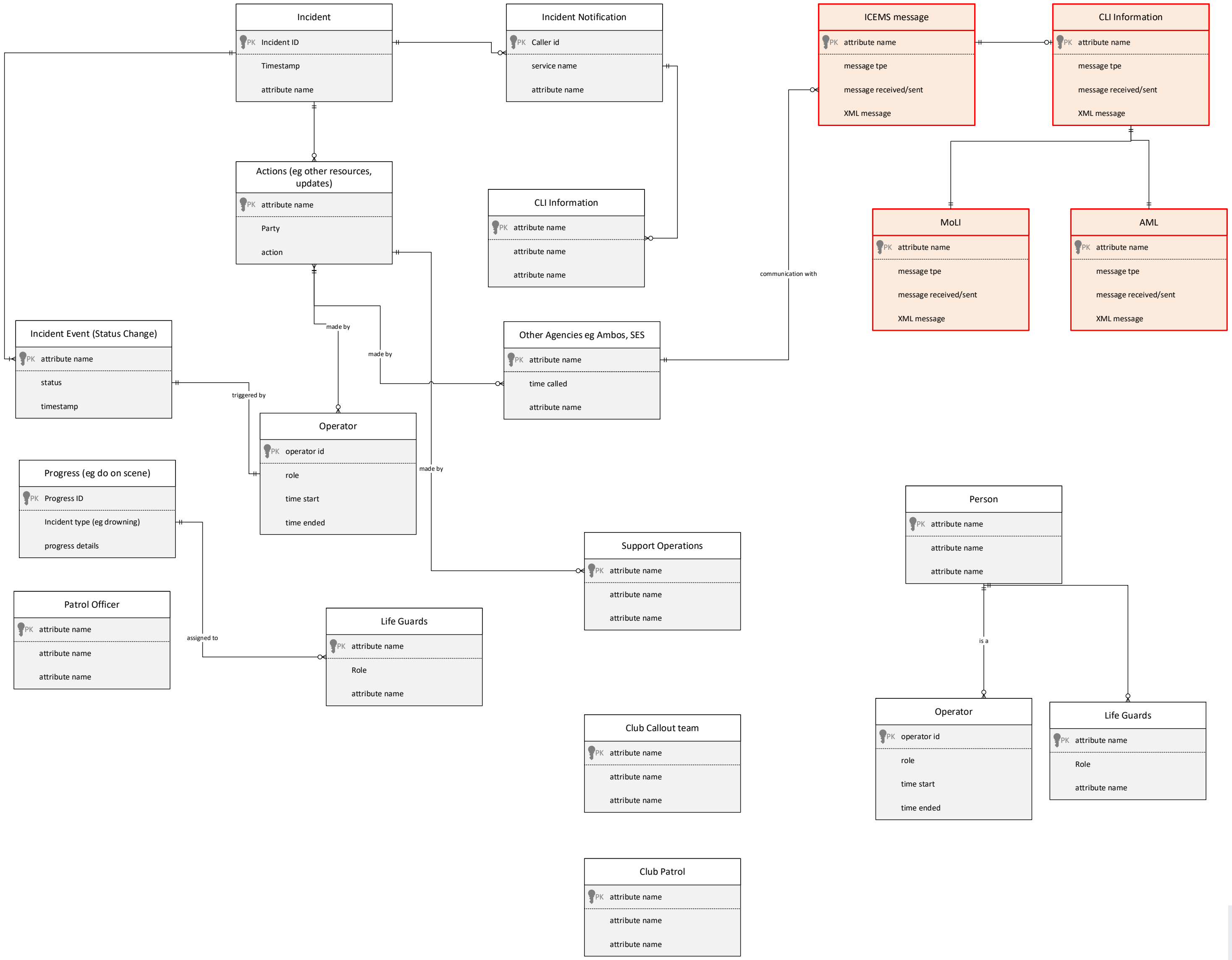
Update acknowledged

IUA

Message handling - components


ICEMS Network
SOC Operator
IMS
ICEMS Engine
ICEMS Conn Handler
Police
Police operator
E000 call taken
Attn: New Incident
Create new incident
IAR
IAR
notify SLSNSW
read incident info
Incident has been seen
User has seen incident
IRA
IRA
SLS has seen incident
Operator confirms information, checks cameras etc
updates SurfCom
message log update
Incident update
IUM
IUM
Incident update
note additional information
IUA
IUA
update has been seen
IUA
incident update for SLSNSW
update on incident
incident update from Police
IUM
IUM
read update
update has been seen
update noted
IUA
close incident
close incident
incindet closed
ISU (Closed)
SLS closed notification
LOR
ACK

Data Model



Incident
PK Incident ID
Timestamp
attribute name

Incident Notification
PK Caller id
service name
attribute name

ICEMS message
PK attribute name
message tpe
message received/sent
XML message

CLI Information
PK attribute name
message tpe
message received/sent
XML message

Actions (eg other resources, updates)
PK attribute name
Party
action

CLI Information
PK attribute name
attribute name
attribute name

MoLI
PK attribute name
message tpe
message received/sent
XML message

AML
PK attribute name
message tpe
message received/sent
XML message

Incident Event (Status Change)
PK attribute name
status
timestamp

Other Agencies eg Ambos, SES
PK attribute name
time called
attribute name

Operator
PK operator id
role
time start
time ended

Progress (eg do on scene)
PK Progress ID
Incident type (eg drowning)
progress details

Person
PK attribute name
attribute name
attribute name

Support Operations
PK attribute name
attribute name
attribute name

Patrol Officer
PK attribute name
attribute name
attribute name

Life Guards
PK attribute name
Role
attribute name

Operator
PK operator id
role
time start
time ended

Life Guards
PK attribute name
Role
attribute name

Club Callout team
PK attribute name
attribute name
attribute name

Club Patrol
PK attribute name
attribute name
attribute name

Time Out Configuration

Timer	Range	Example/Notes	SLSNSW Config
ACK timeout	10sec to 60sec	**Awaiting the associated ACK in response to a message being sent. This applies to all messages associated with the agency**	**This is automatic and can be handled by the ICEMS Connection Handler component**
Op Accept timeout	10 sec to 24hr	**Awaiting the associated IRA Operational Acceptance message following the sending of an IAR**	**This should be set so that incidents do not timeout while the SOC is unmanned at night. Maybe make this 15 hours.**
Urgent Op Accept timeout	10sec to 60min	**Awaiting the associated IRA Operational Acceptance message following the sending of an Urgent IAR**	**This should probably be set at about 10 minutes.**
IUM timeout	10sec to 60min	**Awaiting the associated IUA message following an IUM being sent**	**This should be set so that updates do not timeout while the SOC is unmanned at night. Maybe make this 15 hours.**
Urgent IUM timeout	10sec to 60min	**Awaiting the associated IUA message following the sending of an urgent IUM**	**This should probably be set at about 10 minutes.**
RSQ timeout	**10sec to 60min**	**Awaiting the associated RSU message following the sending of an RSQ**	**There is no urgency indicator on this message so it will need to be set to align with the non-urgent IARs and IUMs.**