

JOURNEY MAP

STATE EMERGENCY SERVICES (SES) - ILLUSTRATIVE SCENARIO (Hypothetical)

The following scenario is hypothetical only and is meant to reflect the typical issues faced by any Emergency Services or State Emergency Service ('SES') agency responding to a major storm or flood in any jurisdiction across Australia. The actual practices, devices, role titles and department names used by the relevant agency in each jurisdiction in a similar situation may vary.

Tornado in coastal town

At 2 am, a tornado hit a regional coastal town. causing damage to 100+ houses; the storm has also taken out the local telecommunications infrastructure and power is out. The fire station is inaccessible due to fallen trees. There are also fallen trees down and landslides on the roads in and out of town - making access challenging.



"I have never been so scared in my whole life, I was terrified. It was like an explosion when the roof blew off and the walls fell down."

Town residen

Event Details

Event type: Severe event Duration: 6 days

Urgency of need: Critical ASAP

Civilians: 100+ homes damaged Location: Regional coastal

Geography: Mostly suburban with some semi-rural

Environment: Debris, strong winds, rain, dark, hazmat, landslide

Access: First Responder access only

Coverage Issues

Temporary Coverage required: No coverage (some MNO Sites destroyed. Others impacted by power outage) Agencies: SES is lead combat agency, all other agencies (Police, Ambulance, Urban and Rural Fire Services are also in attendance)

Connections required: Peak - 150+ (all agencies)

Acronyms

BAU: Business as usual

CoW: Cell on Wheels LMR: Land Mobile Radio

MNO: Mobile Network Operator

OC: Operational Communications

PSMB: Public Safety Mobile Broadband

SES: State Emergency Services

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THE SCENE

SES arenotified by Police that there is significant local damage in a regional coastal town as a result of

At the econe there is devestation, and the local crew from SES are on the ground within five minutes. They gather intel as best they can about the extent of the damage. It is dark, raining and the general public are panicked about what is happening.

The central command for the Tornado is set up at the local SES base. They link back with SES Central Command via LMR (which is still functioning).

"Our priority was to get an idea of the scale required. So, we had to go back to basics; at the ene, all intel was gathered by pen and paper or verbal accounts shared in person."

As the picture from the scene emerges from eyewitness reports, the scale and complexity of the incident become more apparent. SES and other PSA

teams have to attend to multiple rescues across

town. Getting Comms up and fully functional is critical. On-scene command liaises with SES Central

Command to request urgent support.



+ 1.5 HOURS

At the scene, there are dangerous conditions with gas leaks and ower lines down. Multiple PSA eams on the ground have prioritised critical rescues and making the town safe for residents. Temporary Broadband assets arrive and are set up providing immediate relief.

ications, we need them

urgently. And it needs to be a turn-key response, always ready to go - so that the teams can jump in the vehicles and get to where they are needed as soon as possible.

"The team on the ground are under high pressure, you don't want them having to change behaviour or think about how to they have to connect their comms. It just needs to work."

STRETCHED

PRESSURE LEVELS ON THE TEAM



DIAGNOSTICS Assess all the information to determine the factors that will shape the response.

The on-duty Operational Communication Planner or equivalent role ("Op Comms Duty Officer") at SES is advised that there has been quest for comms support as the local mobile

- Gather available intel to better understand the problem. This might include:

 a. Details of the type of incident,
 environment and other requirements
- b. Written or verbal accounts shared in

Build a situation report (SITREP) - which outlines the problems or issues to be solved

c. Topography geo-mapping assessmen (Google maps)
d. Try to find out the scale of MNO outage or degraded service (instance via reports from boots on the ground) e. Any other information available

Review diagnostics to formulate an initial response.

SOLUTIONING

Once the key nonhierrs to be solved have been

dentified, the Op Comms Duty Officer will: 1. Devise an initial plan – to outline what

- ary coverage assets are needed at
- 2 Check that those assets are available

GETTING TO EVENT Gather assets and team to the site

- Once approval to proceed is received, the Op Comms Duty Officer will: 1. Contact and brief the responsible
 - Deployment Team about which Temporar Coverage assets are required along with any information they have about the locations for setup etc.
 - 2. Locate people who can set up the equipment at the event
 - I. The Deployment Team will then:
 a. Locate and access the asser
 - b. Transport those assets and the

INITIAL SETUP

FOCUSED

- 1. Determine safe access and location to 2. Set up the Temporary Coverage assets at
- the event in multiple locations:
 a. Find power source (if needed e.g. generator)
 b. Ensure the solution is secure
- c. Set up Key Coverage Assets (this
- might be a CoW or a portable Tower, d. Set up any Additional Coverage Extension required (e.g. Mesh Networks, repeaters, Directional
- e. Turn on assets and validate that they

VALIDATE AND INTEGRATE INITIAL SOLUTION

Once the Temporary Coverage assets have bee et up, the Deployment team inform the Op omms Duty Officer of what has been setup and how in-field teams can connect to it (if the

The Op Comms Duty Officer then liaises with the local Incident Commander and works with them on integrating these solutions into the Incident

WHAT

teams)

OPERATIONAL

COMMS ARE

DOING (and

internal tech

→ 5 DAYS POST-INCIDENT ACTIVITES ---8 HOURS -



The life-threatening rescues are complete. However scheetee has been detected in some areas. Access to those areas is now restricted and requires everyone to sign in and out.

Power and public MNO networks are partially restored in some areas which brings with it an influx of calls from the public and a new wave of call-outs to respond to.

Broader support arrives as access to the town is cleared. A longer-term temporary solution for access to mobile networks is needed to support this surge in PSA and public use as MNO networks are heavily congested.

"The team is exhausted but relieved to be getting a more comprehensive idea of the extent of the damage on the ground. Now the area is safe, the focus from an operational communications perspective is putting in place sustainable infrastructure that can provide multiagency communications over the coming days."

"Un until now there has been no public

communication channels up, with the MNO partially restored there is a new wave of calls for assistance

and also increased numbers of PSAs."

into the recovery phase, SES switch from being the lead Combat Agency to providing support for the main Recovery Agency. Power and local MNO services are now fully restored. The number of First Responders at the site is wound right back so the team begin to execute a demobilisation plan. Temporary Broadband assets are packed up for transport back to their storage locations.

As infrastructure is restored and the event moves



"As much as possible, we try to get observations as and when they occur.

FAGITUED

MAINTAIN

Keep equipment up and running

Once in place the Temporary Coverage Assets may be left on their own, whilst the Deployment Team attends to other issues to support the

The performance of the Temporary Coverage assets is monitored remotely - and any issues that can't be resolved remotely are sent to the in-field Deployment team to deal with.

Some of the key things that need to be done in the field are:

- . Ensuring that power is maintained to the
- assets:

 Check and replace batteries

 Re-fuel generators

 Finding additional power supplies if
- needed
 Ensuring the asset is safe and secure from environmental factors or looters.

REVIEW AND ADJUST

Monitor conditions and optimise the solution as needed.

- Officer may decide to adjust the set up if:
- 1. More equipment is needed this can happen if the size of the incident increases.
 The type of equipment required needs to be reviewed - to meet the charging nature of the incident and the challenges this brings.
- The deployment model needs to change -because of the changing needs of the incident for example, there will likely be
- increased congestion over time. 4. Onsite equipment can be optimised – to deliver better service to in-field teams by tightening things up.

 5. The solution needs to be scaled to support
- multi-agency communications through additional assets and/or a change in overall

CONTINUAL INTEGRATION WITH ONSITE NEEDS

Align with the team in charge of the operation

The Ops Comms Duty Officer will: Continue connecting with the onsite teams to ensure the solutions in place meet their

needs and notify them of any changes to what is deployed.

Keep liaising with the Incident Management
Team to stay ahead of any changes needed. The Op Comms Duty Officer/Deployment team receive advice that the incident is over via onsite comms or central command. into effect:
1. Transition the comms from the combat

DEMOBILISE

agency assets to the recovery agency.

Pack up assets and transport them

agency assets to the recovery agency.

2. Pack temporary coverage assets up, which includes, breaking the gear down and getting it ready to transport.

3. Transport the assets back to storage

OFFLINE MAINTENANCE

Ensure equipment is ready for the next deployment.

Make sure the equipment is maintained between use and that it is back where it should be (ie in the right location).

thorough check-over, servicing and

INCIDENT REVIEW Debrief and identify

opportunities to improve.

review involving a debrief and lessons learned

Enlarged Journey Map set up to print on A3 paper: Page 2 of 2