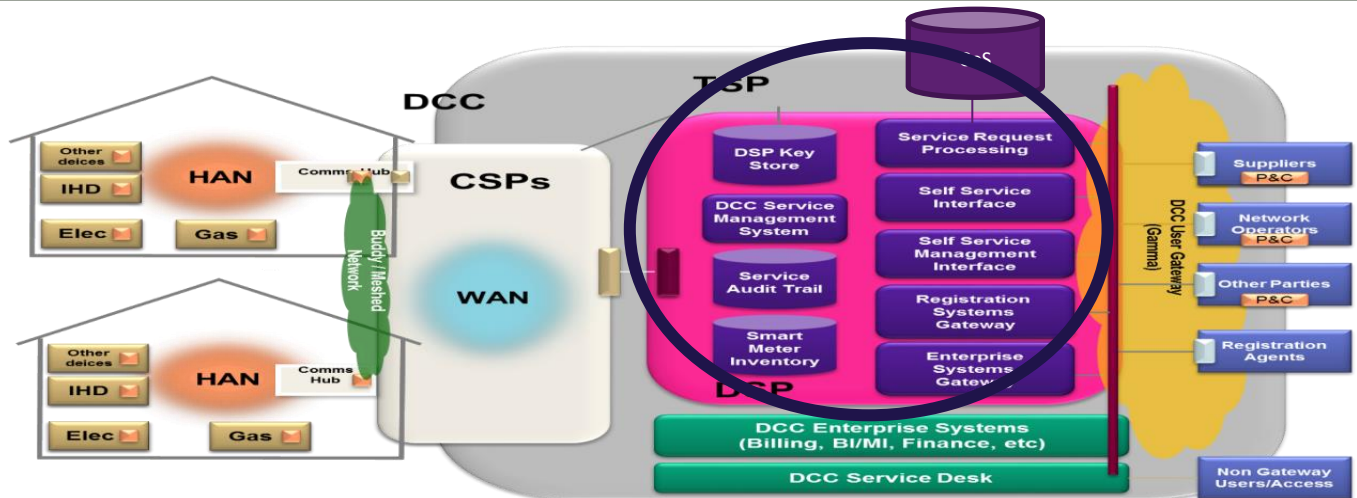


DCC Major Incident Summary Report

(Produced in accordance with Section H9 of the SEC)

Date of Incident	19/10/2019
DCC Incident Reference Number	INC000000503961 PBI000000117240
Service Impacted	DSP Core Services
Date/ Time Incident reported	19/10/2019 10:59 Category 2 Increased to Category 1 at 11:15
Date & time incident resolved	19/10/2019 11:55
Time taken to restore Service(s) (Hours)	56 minutes
Resolution within SLA (Y/N) [SEC 9.14(b)]	Y

Nature of the Major Incident / Short Description



At 10:20 on Saturday 19 October 2019, DCC Service Centre advised DCC Incident Management that multiple Service Users were reporting issues with Service Requests (SR's) not completing as expected. DCC Incident Management requested a Category 2 ticket be raised.

At 10:30 DCC contacted the DSP Major Incident team to advise a high priority ticket was being raised for investigation into multiple service users reporting SR's were not completing as expected.

At 10:41 DCC's Major Incident Manager escalated the issue to DSP Service Delivery Manager (SDM).

At 10:59 DSP SDM advised all services through DSP were impacted and it was suspected to be related to a failed High Security Module (HSM).

At 11:05 DCC Incident Management raised the incident to Category 1 due to the reported impact.

At 11:34 DSP SDM confirmed that a faulty HSM had been isolated and services were being restarted.

At 11:48 Installs were seen to complete successfully

At 11:55 DSP SDM confirmed all services had been restored

At 12:48 DCC Service Centre received confirmation from Service Users that service was restored – Install & Commission and Service Requests were completing as expected.

At 13:10 DSP confirmed full restoration to all services and resilience for the motorway was in place.

Region / Location impacted

This incident affected all regions (North, Central and South)

Summary of impact / Likely future impact of the Major incident

There were 1588 meter installations against a predicted install volume of 3530, meaning an estimated impact of 1922 meter installs for the day.

The volume of SRs impacted is yet to be determined.

The impact was to all services running via the DSP 'Motorway'. Service Users reported:

- 1 E55 errors being returned for Service Requests
- 2 SR 8.11s being sent with no N24 or N25 responses being returned after the join period finished
- 3 HTTP 500 (service unavailable) messages being returned from the DSP
- 4 SRs being sent that then failed but no E21/N13 DCC Alert being returned

DSP confirmed 2.5 million transactions were received between 09:30 and 11:55, with 330 thousand failing.

Resolving actions taken

DSP engineers isolated a faulty HSM from the network and restarted the 'motorway' applications in a controlled manner to restore service.

To immediately mitigate against a future occurrence, DSP have amended their operating procedures to ensure that if an HSM experiences a failure it will be removed from operational service until the HSM has been restored and can safely be re-introduced to service.

Additional monitoring has also been implemented to ensure processes are running correctly on the HSM devices.

Root Cause, if known

Root Cause is currently unknown but is related to a failure of an HSM. Further investigations are in progress under Problem Management ticket PBI000000117240.

Table of linked incidents

Incident	Linked incident	Nature of link
INC000000503961	INC000000503832	System Generated Alert
	INC000000503865	Raised by DCC TOC
	INC000000503870	System Generated Alert
	INC000000503877	System Generated Alert
	INC000000503878	Raised by Service User
	INC000000503884	System Generated Alert
	INC000000503889	System Generated Alert
	INC000000503896	System Generated Alert
	INC000000503955	System Generated Alert
	INC000000503970, 71, 72, 73, 74, 75, 76, 78	System Generated Alert
	INC000000503981, 84, 85	System Generated Alert
	INC000000503991, 94	System Generated Alert
	INC000000504011, 26, 27, 28	System Generated Alert