GGUS service incident report

Description

During the scheduled maintenance work on Wednesday, 31st of May 2017 the GGUS team upgraded the BMC Remedy servers from version 8.1.2 to version 9.1.2 Patch 3. The upgrade process has been tested on GGUS development and GGUS test instances before. The upgrade of the email engine of Remedy server worked on active production server but not on production stand-by server. Fixing the email engine upgrade on production stand-by server took some time and the maintenance work couldn't be finished within the scheduled time.

After GGUS system was back online another issue occurred. Setting date-time fields via web service lead to errors.

Impact

GGUS system was offline longer than announced.

After being online GGUS system functionality was reduced to the date-time problems of web services.

Timeline

Date	Task
2017-05-31 10:00 UTC	End of scheduled downtime
2017-05-31 10:00 UTC	Downtime extension announced (https://goc.egi.eu/portal/index.php?Page_Type=Downtime&id=23263)
2017-05-31 12:30 UTC	Date-time problem detected by some users
2017-05-31 13:30 UTC	Outage announced in GOC DB (https://goc.egi.eu/portal/index.php?Page_Type=Downtime&id=23266)
2017-05-31 16:00 UTC	Date-time problem fixed. GGUS operational again.

Analysis

It was impossible to figure out why the email engine upgrade on the stand-by server failed.

The cause of the date-time problem is a change in BMC Remedy. In previous versions data type "integer" for date-time fields was allowed. In the latest version the data type for date-time fields has to be "dateTime" although the values for date-time fields did not change (unix timestamp). Date-time fields are used very rarely in GGUS. Hence this problem was not recognized during tests on test instance.

Follow-up actions

All web services have been reviewed and the data type for date-time fields have been changed to type "dateTime".

Summary

There was no chance to avoid the upgrade problems with the email engine.

The date-time issue should have been detected during testing on test instance. The GGUS team will adapt the test procedures accordingly.