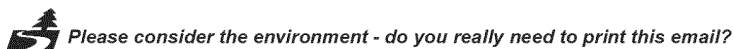


To: Brimicombe John [GRO]
From: Allen Graham (BRA01)
Sent: Tue 4/6/2010 12:32:54 PM (UTC)
Subject: RE: Red Alert - Independent Technical Review

I'll do the facilitating but I'll have to leave the oracle code to whoever has employed him. I'll prod though.

Graham Allen
Application Services – Post Office Account

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From: Brimicombe John
Sent: 06 April 2010 13:31
To: Allen Graham (BRA01)
Subject: RE: Red Alert - Independent Technical Review

For two days hopefully with his knowledge and experience he can at least ask the right questions and put in place some recommendations. Please can you make available an SST code for James and also facilitate any access he needs to resources (including people) as necessary.

Kind Regards,
John.

John R. Brimicombe
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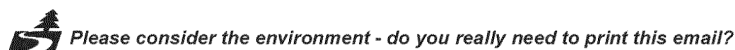
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From: Allen Graham (BRA01)
Sent: 06 April 2010 11:25
To: Brimicombe John
Subject: FW: Red Alert - Independent Technical Review

Freed him then??

Graham Allen
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From: D'Alvarez Alan
Sent: 06 April 2010 11:09
To: Lywood Pat; Stinchcombe James
Cc: Butts Geoff; Van Achte Gaetan; Wood Mike; Bounds Gavin; Allen Graham (BRA01); Richardson Debbie DB
Subject: Red Alert - Independent Technical Review

James,
As discussed, the account has gone on Red Alert due to service impacting issues. The initial Red Alert call had two aspects:

1. Stability of the solution
2. Service readiness

It's the stability of the technical solution that we have requested you to come in and independently review. The brief history is:

- Evening of 25th March we started high volume pilot – successfully migrating an additional 208 branches (from a target deployment of 215 branches that night). Taking the total number of branches on HNGX to 612
- Up until 12.30pm everything was looking OK. From that point we had a catastrophic failure of the BRDB nodes causing total loss of HNGX for over an hour, followed by a 30 minute loss of part of the estate around 3pm. Features of the loss of service were:
 - Unusually high number of time outs
 - The way the timeouts/retries were 'hitting' the BRDB
 - Oracle 3136 error message triggering the BRDB to 'spin' and hang
- On Monday further HNGX service disruption (not complete outage) caused by loss of single instances of the BRDBs.
 - A decision was taken to switch off of Oracle Streams at this time which co-incided with the system settling down
- On Wednesday – some additional loss of HNGX service for short periods of time also caused by loss of single instances of the BRDBs
- Current technical progress
 - Oracle has identified a known issue that results in the same symptoms we have experienced through the Oracle 3136 error message and stated this was fixed in Oracle Patch Set 3. As a consequence we have implemented this into Live this weekend
 - A programme to upgrade Redhat has been put in place which is implemented on the BRDB and a number of other critical databases, but there are still a number to be upgraded
 - Root cause of issue still uncertain (why are we getting the timeouts in the first place) – the following lines of investigation are in hand:
 - The Network Team identified packet loss and have noted that one single 1gig port is used for all four BRDB nodes on the BladeFrame and was currently running at >600mb traffic with just 5.5% of the Branches live on HNGX. A plan is in place to spread the load across 4 ports – one for each BRDB instance
 - We had also identified a number of performance related fixes in VOL testing associated with the BRDB which we also applied to Live over the weekend
 - Some of the counter SQL queries may be inefficient – number of these have/are being rewritten
- On Thursday, Horizon PCI banking suffered severe service disruption with 80% of all transactions failing at the PEAK time (9.30am through to 11.15am) – HNGX was not impacted
- Another service impacting issue hit Horizon PCI banking this morning
 - No conclusive evidence as yet on whether these are connected – although there was 'talk' that the BRDB might be using Horizon PCI addressing, but this has not been confirmed

Pat,
At Thursday's Red Alert call it was agreed that an independent review of how we are progressing the technical issues be undertaken. I put forward James' name as being a suitable candidate due to his technical expertise and knowledge of the architecture (to avoid the exercise becoming a distracting 'learning' exercise for someone who was totally new to the solution). James will be able to start this afternoon to get an overview of the issues and any changes to the solution since he last worked on it. He will also be able to assist from tomorrow afternoon and the rest of the week. Can you/Graham Allen facilitate this.

Thanks

Alan D'Alvarez

Programme Director, RMG BU

Associate P&PM Academy

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