--- CHANGE DETAILS ---

To accommodate for the new sites coming on board and help speed up replication throughout the domain, the current sites and services design needs to be reviewed.

--- IMPLEMENTATION DATE ---

Tuesday August 27, 5pm

--- IMPLEMENTATION STEPS ---

Create new site links

Rename existing sites, create new sites where required

Update subnets where required

Force the topology to replicate after changes (Right click NTDS settings, click all tasks, check replication topology)

Make changes on the inter-site topology generator for that site

Test

\*\*Need the team to check the Sites spreadsheet to ensure every ip subnet we have in production is listed against the correct site\*\*

Best practice says not to create a site where there is no domain controller unless there is an application that requires it (for example DFS) running locally. Therefore, subnets that do not house a DFS share or a domain controller will be added to the SITECODE site.

Create Sites/Site Links For:

*site names*

Visual representation of the site layout can be found here:   
and Services Design.vsd

Relative site link costs have been calculated according to Microsoft best practice: 1024/log(link speed) and rounded to the nearest hundred.

**Design points based on MS Best Practice:**

* Let the KCC manage and optimise the replication partners (set site links and costs and let KCC do the rest, do not create any manual replication partners)
* For immediate replication we will enable change notification on the SITECODE and BB01 site links <http://blogs.msdn.com/b/canberrapfe/archive/2012/03/26/active-directory-replication-change-notification-amp-you.aspx>
* To help clients behave more efficiently enable the next closest site group policy  
  <http://technet.microsoft.com/en-us/library/cc733142%28v=ws.10%29.aspx>
* Move the PDC and RID master to SITECODEADC1a
* Do not create any site link bridges initially unless there is another site with a fast/idle link and DC that we can utilise
* Ensure link transivity hasn’t been disabled on any links

Consider changing one of the DC’s at the Catholic centre so it’s not a global catalogue server. Move the Infrastructure Master role to that DC to ensure cross forest replication is healthy.  
“Best practice: Do not place the infrastructure master on a domain controller that is also a global catalog server. If the infrastructure master and global catalog are on the same domain controller, the infrastructure master will not function. The infrastructure master will never find data that is out of date; therefore, it will never replicate any changes to the other domain controllers in the domain.  
<http://technet.microsoft.com/en-us/library/cc754889%28v=ws.10%29.aspx>”

* Consider setting the group policy “Contact PDC on logon failure”   
  <http://www.theparadoxgroup.co.uk/support/knowledgebase.php?article=184>
* Enable FRS per Justin’s outstanding change

--- TEST PLAN ---

Force the topology to replicate (Right click NTDS settings, click all tasks, check replication topology)

Run repadmin and check the event viewer for errors

Create an object and ensure it is replicated to a slow link site in a timely fashion

Make a change that should trigger immediate replication (lock an account) and ensure it is replicated to a slow link site in a timely fashion

Check event logs on the SITECODE DC and ensure there are no errors

--- ROLLBACK PLAN ---

If the issues aren’t catastrophic it would be preferable to resolve issues over rolling back the changes.

--- COMMUNICATION ---

Email the team to communicate the changes to the team so everyone knows what to look out for if there are issues

--- RISK ---

This is a medium risk change; if data can’t replicate changes made in any active directory integrated application will not filter out. If data doesn’t replicate for 30 days DC’s will be excluded from replicating even after the issues are resolved.

If sites are misconfigured users may authenticate to the incorrect sites causing higher than normal network utilisation.