The grandfather-father-son (GFS) backup method

The grandfather-father-son (GFS) backup method is a widely used rotation-based schedule that involves creating daily(son), weekly(father) and monthly(grandfather) backups (Oteng-Boateng, 2011). The GFS system enables data to be restored from the past week, any week in the past month or from any month since the system began which allows for a fail safe for if one of the sets fails there are other backups in place (Murphy, 1996). In comparison to other backup methods the GFS provides the most resilience to failure and data loss due to it using a variety of storage media and a combination of both full and incremental backups (Cumbie, 2007). This range of backup options provides a greater range of options than other backup options but can require a significant number of tapes.

Monday	Tuesday	Wednesday	Thursday	Friday
	1	2	3	4
	Tuesday	Wednesday	Thursday	Friday
7	8	9	10	11
Month 1	Tuesday	Wednesday	Thursday	Friday
14	15	16	17	18
Week 2	Tuesday	Wednesday	Thursday	Friday
21	22	23	24	25
Week 3	Tuesday	Wednesday	Thursday	Friday
28	29	30		
Week 4	Tuesday	Wednesday		

Figure 1: GFS Rotation System (Oteng-Boateng, 2011)

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