SKILLS FRAMEWORK FOR INFOCOMM TECHNOLOGY
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT

TSC Category	Operations and User Support				
TSC Title	Data Migration				
TSC Description	Plan and perform activities to migrate data between computer storage types or file formats				
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			ICT-OUS-3005-1.1	ICT-OUS-4005-1.1		
			Prepare data and perform manual or automated data migration, troubleshoot database errors faced, and validate migrated data post-migration to ensure accuracy	Determine the business need for data migration and plan data migration activities, establishing guidelines and strategies to minimise impact on daily business operations		
Knowledge			• Manual data migration procedures • Types, categories and usage of data movers including host-based software, array-based software and network appliances • Usage of database migration tools • Duration of different data migration processes and downtime required • Potential risks to the business from data migration activities • Data corruption, application performance issues, missed or lost data, and other potential technical compatibility issues related to data migration • Methods of cleaning and validating data	• Key drivers and objectives of data migration • Industry best practices and methodologies for data migration • Emerging trends in data migration and management • Data migration and database management system software and tools • Applications, pros and cons of data migration and database management system software and tools • Impact of data migration on daily business operations • Applications of different data movers for different contexts and purpose • Scheduling, replication, hardware, data volume and data value requirements for data migration		

| Abilities | | | • Perform extraction, transformation and de-duplication of data before migration
• Install migration software and configure required hardware according to the communicated data migration plan
• Apply tools to automate and accelerate the data migration process, according to a data migration plan
• Perform standard manual transfer of data to new storage types, formats or systems according to data migration instructions
• Apply data migration policies to move data in an orderly manner
• Troubleshoot database errors or problems faced in database migration activities
• Validate the migrated data to ensure accuracy
• Document the data migration process. | • Determine the business need for data migration
• Gather impact of data migration activities on business operations and other potential risks or costs
• Formulate a data migration plan to facilitate the transfer of data to new storage types, formats or computer systems
• Communicate methodologies for data migration
• Determine appropriate database management and migration tools and system software to be used, in ensuring they are fit for organisational purposes
• Manage the installation of migration software and the configuration of required hardware
• Develop strategies to minimise impact of data migration on daily business operations
• Set guidelines for migration documentation to facilitate tracking
• Validate post-migration statistics to determine data accuracy | | |
| Range of Application | | | | | | |