Perancangan migrasi cloud arsitektur IS/IT pada Disaster Recovery System (DRC) dengan menggunakan metodologi TOGAF: Studi kasus PT ABCD = Designing IS/IT cloud architecture for Disaster Recovery System (DRC) using the open group architecture framework methodology: A Case study of PT ABCD

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Abstrak

Teknologi Infomasi (TI) pada PT ABCD memiliki peran penting dalam dalam meningkatkan efisiensi, transparansi, dan keamanan operasional pasar modal. Beberapa aspek penerapan TI dalam PT ABCD meliputi sistem perdagangan elektronik, sistem penyelesaian transaksi, pengawasan pasar, serta informasi dan komunikasi kepada peserta pasar. Sistem ini memfasilitasi secara elektronik dengan menyediakan platform yang memungkinkan para investor bertransaksi terhadap Anggota Bursa. Ketersediaan Disaster Recovery System pada sistem perdagangan elektronik dilakukan guna menjawab kebutuhan dan tantangan Bisnis dalam terjaganya availibity System pada saat bencana. Namun saat ini penerapan Disaster Recovery System melalui colocation belum optimal, karena tingginya biaya operasional yang terus meningkat tiap tahunnya dan belum adanya standard Enterprise Architecture dalam penerapan Disaster Recovery System melalui Cloud sebagai standard acuan penggunaan dan pengembangan System. Penelitian ini bertujuan untuk merancang sebuah arsitektur menggunakan The Open Group Architecture Framework (TOGAF) sebagai panduan pengembangan arsitektur dengan menggunakan metode kualitatif dan studi kasus di PT ABCD. Pengolahan data dilakukan melalui wawancara dan observasi terhadap lingkungan organisasi serta proses bisnis yang terjadi di unit kerja terkait. Penelitian ini menghasilkan penyesuaian arsitektur saat ini yang disesuaikan untuk memastikan kesiapan Architecture Cloud meliputi rancangan data, bisnis, aplikasi dan infrastruktur guna mengoptimalkan proses operasional perdagangan dan perkantoran pada saat bencana. Selanjutnya penelitian ini dapat memberikan masukan, acuan dalam pengambilan keputusan pengembangan DRC pada mekanisme Cloud .

.....The implementation of Information Technology (IT) at PT ABCD plays a crucial role in enhancing the efficiency, transparency, and operational security of the capital market. Various aspects of IT implementation at PT ABCD include electronic trading Systems, transaction settlement Systems, market surveillance, as well as information and communication to market participants. These Systems facilitate electronic trading by providing a platform that enables investors to transact with Exchange Members. The availability of a Disaster Recovery System in the electronic trading System is essential to meet the business needs and challenges of maintaining System availability during Disasters. However, the current implementation of the Disaster Recovery System through colocation is suboptimal due to the high operational costs that continue to increase annually and the absence of an Enterprise Architecture standard in implementing the Disaster Recovery System through the Cloud as a reference for System usage and development. This research aims to design an Architecture using The Open Group Architecture Framework (TOGAF) as a guide for architectural development, employing qualitative methods and a case study at PT ABCD. Data processing will be conducted through interviews and observations of the organizational environment and business processes in the relevant work units. This research has resulted in adjustments to

the current Architecture , tailored to ensure readiness for Cloud Architecture including data, business, application, and infrastructure design to optimize operational processes for trading and office functions during Disasters. Furthermore, this research can provide Input and references for decision-making in developing Disaster Recovery Centers using Cloud mechanisms.