

ABSTRACT

System development which focuses in the use of Information Technology is the basic foundation for an organization to improve its efficiency and effectivity. The use of Information Technology is hoped to increase its ability to compete with other organizations.

When an organization wants to implement a new technology or system, it can use Enterprise Architecture to define various processes running in it. Enterprise Architecture is able to define the existing system and information technology as well as to provide the guideline for an organization in making a good decision when investing in the area of information technology.

Zachman Framework is one of the theories of Information System Modeling which can be used to describe Enterprise Architecture completely. Thus, Zachman Framework can be used to support the definition process in an organization.

Zachman Framework's information system modeling is implemented in the faculty of Information Technology at Maranatha Christian University Bandung. The analysis includes: What column, How column, Where column, Who column, When column, and Why column. What column describes a list of business entities and academic system related data. How column defines the academic business process. Where column describes a major business location. Who column describes human resources of the organization. When column describes major events and Why column defining business strategy and long term planning of the Faculty.

The final result of Zachman Framework implementation in the faculty of Information Technology at Maranatha Christian University will produce an enterprise architecture documentation for 2006 / 2007 odd term. The document can be used as a base for technology related investment. For example, adding computer resources for new lectures or upgrading resources for computer laboratory.

Keywords: *Organization, Information System Modeling, Enterprise Architecture, Zachman Framework, Implementation of information technology*

DAFTAR ISI

KATA PENGANTAR	iv
ABSTRACT	vii
DAFTAR ISI.....	viii
DAFTAR GAMBAR.....	xi
DAFTAR TABEL.....	xii
DAFTAR LAMPIRAN	xiii
BAB I PENDAHULUAN.....	1
1.1 Latar Belakang.....	1
1.2 Perumusan Masalah	2
1.3 Tujuan.....	4
1.4 Batasan Masalah	5
1.5 Sistematika Penulisan.....	7
BAB II LANDASAN TEORI	8
2.1 <i>Enterprise Architecture</i>	8
2.2 John Zachman	9
2.3 Zachman <i>Framework</i> untuk <i>Enterprise Architecture</i>	10
2.3.1 WHAT	12
2.3.2 HOW	13
2.3.3 WHERE	14
2.3.4 WHO.....	15
2.3.5 WHEN.....	16
2.3.6 WHY	16
2.4 Kerangka Arsitektur Lainnya	17
BAB III <i>ENTERPRISE ARCHITECTURE</i> FAKULTAS TEKNOLOGI INFORMASI	19
3.1 WHAT	19
3.1.1 Scope.....	19
3.1.2 Enterprise Model.....	21
3.1.3 System Model	23
3.2 HOW.....	24
3.2.1 Scope.....	24
3.2.2 Enterprise Model.....	36
3.2.3 System Model	37
3.2.4 Technology Model.....	44
3.3 WHERE	72
3.3.1 Scope.....	72
3.3.2 Enterprise Model.....	81
3.3.3 System Model	86
3.3.4 Technology Model.....	88
3.4 WHO.....	101
3.4.1 Scope.....	101
3.4.2 Enterprise Model.....	102
3.4.3 System Model	103
3.4.4 Technology Model.....	107
3.4.5 Components.....	130
3.4.6 Functioning System.....	131
3.5 WHEN.....	136
3.5.1 Scope.....	136

3.5.2 Enterprise Model.....	136
3.5.3 System Model	138
3.5.4 Functioning system	143
3.6 WHY	144
3.6.1 Scope.....	144
3.6.2 Enterprise Model.....	148
BAB IV EVALUASI.....	150
4.1 Kolom What	150
4.1.1 Kolom What bagian Scope, Enterprise Model dan System Model	150
4.1.2 Kolom What bagian Technology Model	150
4.1.3 Kolom What bagian Components.....	151
4.1.4 Kolom What bagian Functioning System	151
4.2 Kolom How	151
4.2.1 Kolom How bagian Scope	151
4.2.2 Kolom How bagian Enterprise Model	153
4.2.3 Kolom How bagian System Model.....	153
4.2.4 Kolom How bagian Technology Model	154
4.2.5 Kolom How bagian Components	154
4.2.6 Kolom How bagian Functioning System	154
4.3 Kolom Where.....	155
4.3.1 Kolom Where bagian Scope.....	155
4.3.2 Kolom Where bagian Enterprise Model	156
4.3.3 Kolom Where bagian System Model	156
4.3.4 Kolom Where bagian Technology Model.....	157
4.3.5 Kolom Where bagian Components.....	157
4.3.6 Kolom Where bagian Functioning System.....	157
4.4 Kolom Who	158
4.4.1 Kolom Who bagian Scope	158
4.4.2 Kolom Who bagian Enterprise Model	158
4.4.3 Kolom Who bagian System Model	158
4.4.4 Kolom Who bagian Technology Model	158
4.4.5 Kolom Who bagian Components.....	159
4.4.6 Kolom Who bagian Functioning System	159
4.5 Kolom When	159
4.5.1 Kolom When bagian Scope	160
4.5.2 Kolom When bagian Enterprise Model	160
4.5.3 Kolom When bagian System Model.....	160
4.5.4 Kolom When bagian Technology Model	160
4.5.5 Kolom When bagian Components.....	160
4.5.6 Kolom When bagian Functioning System	161
4.6 Kolom Why	161
BAB V PENUTUP	162
5.1 Kesimpulan.....	162
5.1.1 Kolom What	162
5.1.2 How.....	163
5.1.3 Where	164
5.1.4 Who	166
5.1.5 When	168
5.1.6 Why.....	169
5.2 Saran.....	170

DAFTAR PUSTAKA.....	172
LAMPIRAN	174
A. Form Akhir Masa Studi.....	174
B. Berita Acara	175
C. Daftar Hadir Ujian	176
D. Formulir Peminjaman Ruangan Sementara	177
E. Cuti Akademik.....	178

DAFTAR GAMBAR

Gambar I-1 Model Enterprise Architecture Zachman Framework.....	3
Gambar II-1 Enterprise Architecture: A Framework.....	11
Gambar III-1 Diagram Relasional Entitas Bisnis	21
Gambar III-2 Diagram Atribut Entitas Bisnis Fakultas Teknologi Informasi.....	23
Gambar III-3 Aliran Proses Sistem Akademik Fakultas Teknologi Informasi	36
Gambar III-4 Use Case Sistem Akademik Terpadu.....	37
Gambar III-5 Diagram Aktifitas SAT Secara Global.....	39
Gambar III-6 Diagram Aktifitas Ketua Jurusan	40
Gambar III-7 Diagram Aktifitas Sekretaris Jurusan	41
Gambar III-8 Diagram Aktifitas Tata Usaha.....	42
Gambar III-9 Diagram Aktifitas Mahasiswa	43
Gambar III-10 Lokasi bisnis Fak. Teknologi Informasi UK. Maranatha	81
Gambar III-11 Denah Ruang Kantor Fak. Teknologi Informasi UK. Maranatha ..	83
Gambar III-12 Denah Laboratorium Fak. Teknologi Informasi UK. Maranatha ...	84
Gambar III-13 Denah Laboratorium Fak. Teknologi Informasi UK. Maranatha (2) ..	85
Gambar III-14 Skenario Jaringan Domain ENG	86
Gambar III-15 Skenario Jaringan Domain itmaranatha	87
Gambar III-16 Skema Jaringan Ruang Dosen	88
Gambar III-17 Skema Jaringan Laboratorium Komputer	94
Gambar III-18 Kerangka Struktur Organisasi Fak. Teknologi Informasi UK. Maranatha	102
Gambar III-19 Struktur Organisasi Fak. Teknologi Informasi UK. Maranatha ...	131
Gambar III-20 Balance Scored Card Fak. Teknologi Informasi UK. Maranatha	148

DAFTAR TABEL

Tabel II-1 Klasifikasi Matriks Zachman Framework	12
Tabel II-2 Dimensi Kesimpulan Zachman Framework	17
Tabel III-1 Tabel User Interface User Ketua Jurusan	44
Tabel III-2 User Interface Login Sekretaris Jurusan	53
Tabel III-3 User Interface Login Tata Usaha	65
Tabel III-4 Tabel User Interface Login Mahasiswa	69
Tabel III-5 Nama Ruang dan Kapasitas Mahasiswa	73
Tabel III-6 Spesifikasi Komputer Dosen	90
Tabel III-7 Spesifikasi Komputer IT-SERVER	92
Tabel III-8 Tabel Peran Unit Organisasi Fakultas Teknologi Informasi	103
Tabel III-9 Daftar Tenaga Pengajar Program Studi D3 Teknologi Informasi	132
Tabel III-10 Daftar Tenaga Pengajar Jurusan S1 Teknik Informatika	134
Tabel III-11 Daftar Tenaga Pengajar Jurusan S1 Sistem Informasi	135
Tabel III-12 Tabel BHAG (Big Hairy Audacious Goals)	147

DAFTAR LAMPIRAN

Lampiran 1 Form Akhir Masa Studi.....	174
Lampiran 2 Form Berita Acara.....	175
Lampiran 3 Form Daftar Hadir Ujian Fak. Teknologi Informasi UK. Maranatha	176
Lampiran 4 Form Peminjaman Ruangan Sementara	177
Lampiran 5 Surat Permohonan Cuti Akademik	178
Lampiran 6 Surat Permohonan Aktif Kembali	179