DAFTAR GAMBAR

Gambar 1.1 Screenshot pesan email dan lampiran palsu	1
Gambar 1.2 Bentuk wannacry ransomware	1
Gambar 1.3 file .pdf yang telah terinfeksi <i>wannacry ransomware</i>	1
Gambar 1.4 file excel yang telah terinfeksi wannacry ransomware	2
Gambar 1.5 Jumlah data yang telah terinfeksi wannacry ransomware	2
Gambar 2.1 Contoh Konfigurasi Traditional Firewall	6
Gambar 2.2 Metode Serangan Yang Sering Dilakukan	8
Gambar 2.3 DDOS Attack Workflow	8
Gambar 2.4 <i>Waterfall Model</i>	10
Gambar 3.1 Wilayah Operasional PT. RLU	14
Gambar 3.2 Struktur Organisasi Perusahaan	15
Gambar 3.3 Topology Jaringan Berjalan	15
Gambar 3.4a Chek Point Appliance Sizing Recommendation	17
Gambar 3.4b Chekpoint Appliance Sizing Recommendation	18
Gambar 3.5 Bill of quantity dari Check Point 4600 Next Generation Threa	t
Preventation	18
Gambar 3.6 Mengukur p <mark>engena</mark> lan aplikasi <i>firewall</i> generasi mendatang	19
Gambar 3.7 Hasil test keakuratan mendeteksi ransomware	19
Gambar 3.8 Topologi Jaringan Usulan	20
Gambar 3.9 Flow chart serangan file server dan user	21
Gambar 3.10 Langkah – Langkah Merancang Konfigurasi Dasar NGFW	21
Gambar 4.1 Persiapan Instalasi Vmware Workstation Pro	25
Gambar 4.2 Tampilan Awal Proses Instalasi Vmware Workstation Pro	26
Gambar 4.3 Tampilan End-User License Agreement	26
Gambar 4.4 Tampilan User Experience Settings	26
Gambar 4.5 Tampilan Ready to Install VMware Workstation Pro	26
Gambar 4.6 Tampilan Installing VMware Workstation Pro	27
Gambar 4.7 Tampilan Pros <mark>e</mark> s Instalasi Selesai	27
Gambar 4.8 Tampilan <i>Quick Launch Apps</i>	27
Gambar 4.9 Tampilan From The List Below	28
Gambar 4 10 Tampilan select the device driver you want to install for this	

hardware	28
Gambar 4.11 Tampilan <i>network connections</i>	29
Gambar 4.12 Tampilan Internet Protocol Version 4 (TCP/IPv4) Properties	29
Gambar 4.13 Tampilan Virtual Network Editor	29
Gambar 4.14 Tampilan Awal <i>VMware Workstation</i>	30
Gambar 4.15 Tampilan Guest Operating System Installation	30
Gambar 4.16 Tampilan Select a Guest Operating System	30
Gambar 4.17 Tahap Pemberian Nama pada Virtual Machine	31
Gambar 4.18 Konfigurasi Network Adapter	31
Gambar 4.19 Tahap Awal Instalasi Mikrotik RB1100	32
Gambar 4.20 Proses Konfigurasi Mikrotik RB1100 Selesai	32
Gambar 4.21 Tampilan <i>Login Mikrotik</i>	32
Gambar 4.22 Tampilan Konfigurasi Firewall Mikrotik RB1100	33
Gambar 4.23 Tampilan Awal VMware Workstation	34
Gambar 4.24 Tampilan Guest Operating System Installation	34
Gambar 4.25 Tampilan Select a Guest Operating System	35
Gambar 4.26 Tahap Pemberian Nama pada Virtual Machine	35
Gambar 4.27 Tampilan Specify Disk Capacity	36
Gambar 4.28 Tampilan Ready to Create Virtual Machine	36
Gambar 4.29 Dashboard CP77.30	36
Gambar 4.30 Welcome To Check Point Gaia R77.30	
Gambar 4.31 Management Interface (eth0)	37
Gambar 4.32 Preparing Installation	37
Gambar 4.33 Installation complete	37
Gambar 4.34 Tampilan Virtual Network Editor	38
Gambar 4.35 Konfigurasi Network Adapter	38
Gambar 4.36 Gaia Portal	39
Gambar 4.37 Device Information	39
Gambar 4.38 Security Management Administrator	39
Gambar 4.39 First Time Configuration Wizard	40
Gambar 4.40 Menambahkan IP Public di Firewall NGFW Chekcpoint	40
Gambar 4.41 Menambahkan IP 10.0.7.1 di Firewall NGFW Chekcpoint	41

jgui

igul

Esa Unggul

Gambar 4.42 <i>Open Terminal</i>
Gambar 4.43 Checkpoint SmartDashboard R77.30
Gambar 4.44 Penambahana IP Public di Network Objects
Gambar 4.45 Penambahana IP 10.0.7.0 di Network Objects
Gambar 4.46 Checkpoint SmartDashboard R77.30
Gambar 4.47 Konfigurasi Anti-Spam & Mail44
Gambar 4.48 Konfigurasi IPS44
Gambar 4.49 Konfigurasi Firewall Policy45
Gambar 4.50 Uji Coba Serangan UDP Flooding File Server47
Gambar 4.51 Uji Coba Serangan UDP Flooding User47
Gambar 4.52a Kinerja Processor File Server Saat DDOS UDP Flooding –
Mikrotik RB1100
Gambar 4.52b Kinerja Processor User (10.0.8.30) Saat DDOS UDP Flooding –
Mikrotik RB1100
Gambar 4.52c Kinerja Processor User (10.0.8.31) Saat DDOS UDP Flooding –
Mikrotik RB1100
Gambar 4.52d Kinerja <i>Processor User</i> (10.0.8.32) Saat DDOS UDP Flooding –
Mikrotik RB1100
Gambar 4.52e Kinerja Processor User (10.0.8.33) Saat DDOS UDP Flooding –
Mikrotik RB1100
Gambar 4.52f Kinerja Processor User (10.0.8.34) Saat DDOS UDP Flooding –
Mikrotik RB110049
Gambar 4.52g Kinerja Processor User (10.0.8.34) Saat DDOS UDP Flooding –
Mikrotik RB110049
Gambar 4.53a Kinerja Processor File Server Saat DDOS UDP Flooding – NGFW
Gambar 4.53b Kinerja Processor User (10.0.8.30) Saat DDOS UDP Flooding –
<i>NGFW</i>
Gambar 4.53c Kinerja <i>Processor User</i> (10.0.8.31) Saat DDOS UDP Flooding –
<i>NGFW</i>
Gambar 4.53d Kinerja <i>Processor User</i> (10.0.8.32) Saat <i>DDOS UDP Flooding</i> –
NGFW

gul

Gambar 4.53e Kinerja Processor User (10.0.8.33) Saat DDOS UDP Flooding –
<i>NGFW</i>
Gambar 4.53f Kinerja Processor User (10.0.8.34) Saat DDOS UDP Flooding –
<i>NGFW</i>
Gambar 4.53g Kinerja Processor User (10.0.8.35) Saat DDOS UDP Flooding –
<i>NGFW</i>
Gambar 4.55 Respon NGFW Terhadap Serangan DDOS UDP Flooding File
Server
Gambar 4.56 Respon NGFW Terhadap Serangan DDOS UDP Flooding User53
Gambar 4.57a Respon NGFW Terhadap Serangan Wannacry Ransomware File
<i>Server</i>
Gambar 4.57b Respon NGFW Terhadap Serangan Wannacry Ransomware User 55

Esa Unggul

ggul

