NEC

InterSecVM/SG V4.2
for VMware

セットアップ手順書

ごあいさつ

このたびは、InterSecVM/SG V4.2 for VMware（以下、InterSecVM/SG）をお買い上げ頂き、まことにありがとうございます。

本書は、お買い上げ頂いたセット内容の確認、セットアップ手順を中心に構成されています。本製品をお使いになる前に必ずお読みください。

法的情報

目次

1 はじめに

InterSecVM/SGは、VMware vSphere上で利用可能な、仮想アプライアンス製品です。
仮想アプライアンスとは、オペレーティングシステムと必要なアプリケーションが事前に
インストールされた仮想マシンです。

本書では、InterSecVM/SGのVMware vSphereへのインポート手順と、初期導入について
説明します。

1.1. システム構成

InterSecVM/SGのご利用には、VMware vSphere環境をご用意ください。

vSphere Clientを
インストールしているPC

VMware vSphereを
運用しているサーバー
ESX Serverを運用しているサーバー
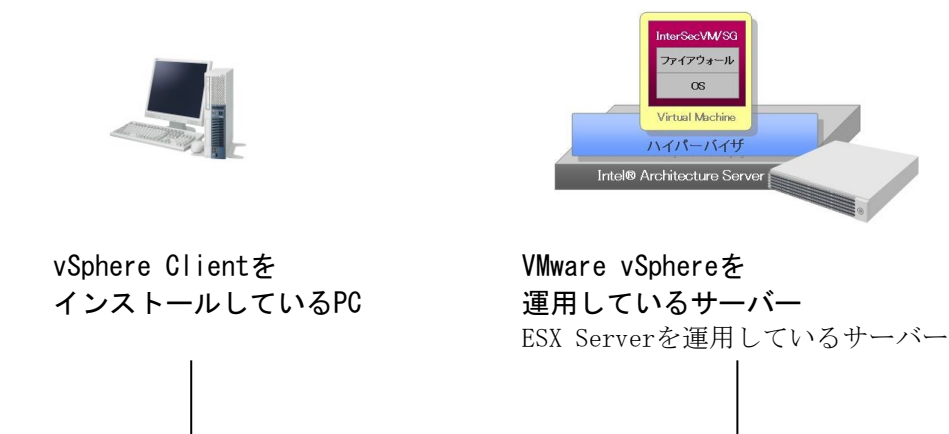
項目	説明
vSphere Client を インストールしているPC	vSphere Clientを使って VMware vSphere を設定、管理します。Windows PCにインストールして使用します。 次のような機能があります。 ・仮想マシンを操作するコンソール機能 ・VMware vSphereの管理ツールとしての機能
VMware vSphereを 運用しているサーバー	VMware vSphereを運用しているサーバーは、VMware社から認証を取得している機種、デバイスで構成されている必要があります。たとえば、CPUが2個搭載されているなどの条件があります。詳細は、VMwareのマニュアル等を参照してください。

1.2. 動作環境

InterSecVM/SGが利用可能なVMware vSphereのバージョンは、2019年1月時点で、VMware vSphere 6(※1)です。これ以降の対応状況は、製品サイトを参照してください。

> (※1) VMware vSphere 6で確認済み環境。
> ESXi6.0
> ESXi6.5

InterSecVM/SGの仮想マシンファイルは以下の諸元に設定しています。

リソース名	必要量
CPU	仮想CPU 1〜2個(コア) 推奨2個
メモリ	2GB(初期値)〜4GB
ネットワークアダプタ 1〜10	LAN1 (vmnic0(VM Network)) に接続 ※1
ディスク容量(初期値)	30GB

> ※1 出荷状態でのネットワークアダプタ(仮想LANインタフェース)は、
> 1〜10ともVM Networkに接続するよう設定しています。
> ネットワークラベル ：VM Network
> IPアドレス(eth0) ：192.168.250.251
> ネットワークマスク ：255.255.255.0
> ホスト名 ：intersec.domain.local

インポートする際に、VMware vSphere に上記のメモリやディスク容量等が確保出来ない場合、InterSecVM/SGのインポートに失敗する、本来の性能を利用することができないなどの問題が発生する場合がございます。

2 InterSecVM/SGのインポート及びネットワーク設定

この章では、"vSphere Client"、もしくは"ブラウザを利用した、vSphere Web ClientまたはvSphere Host Client"を利用してInterSecVM/SG(仮想マシン)を追加する方法を記載しております。またネットワークの変更方法も記載しております。

InterSecVM/SGは、OVFテンプレートとして提供されます。

以下の手順では、「InterSecVM/SG Ver4.0」(バージョンは異なりますが、InterSecVM/SGとしての操作は変わりません。)を例として説明しています。VMwareのバージョンによって、画面レイアウト、流れが異なりますが、基本的な操作は同じため、必要に応じてVMWareのマニュアルを参照ください。

本手順は、"vSphere Client"、もしくは"ブラウザを利用した、vSphere Web ClientまたはvSphere Host Client"にログインしている状態で実施致します。

2.1. vSphere Clientの場合

(1) vSphere Clientの管理画面にて、[ファイル (F)] - [OVFテンプレートのデプロイ (D)] を選択します。

(2) ［OVFテンプレートのデプロイ ］ウィザードの[ソース]選択ページが表示されま
す。
InterSecVM/SGのOVFファイル（例：InterSecVM_SG_V4.0.ovf）をvSphere
Clientより参照可能なドライブに格納し、［ 参照 ］をクリックします。ファイル
選択画面が表示されたらOVFファイルを選択して、［ 開く ］をクリックしま
す。
［ ソース ］ページに戻ったら、［ 次へ ］をクリックします。
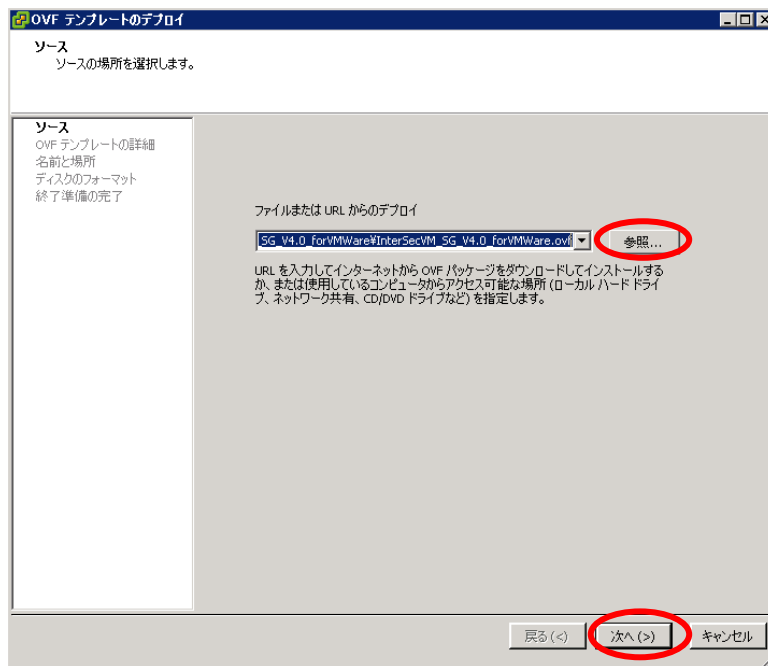
(3) ［OVFテンプレートの詳細］ページが表示されます。［ 次へ ］をクリックします。
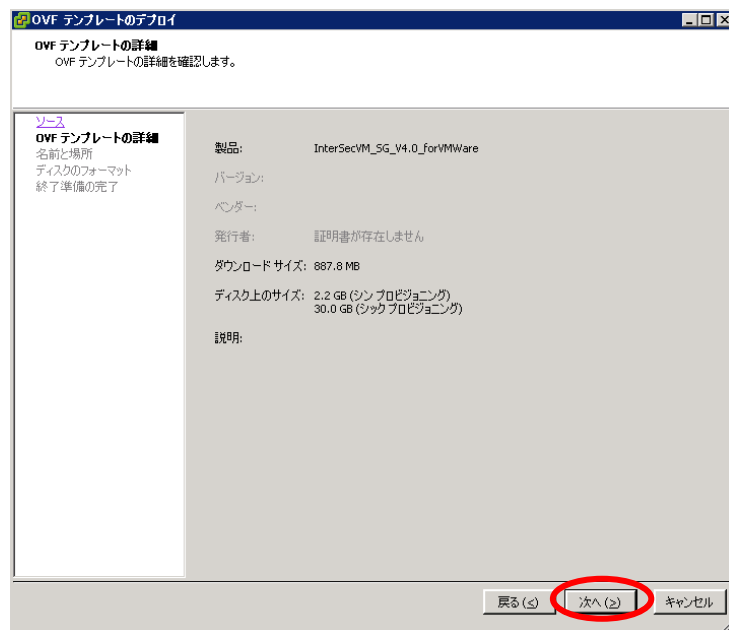
(4) ［ 名前と場所 ］ ページが表示されます。
仮想マシンの名前を指定します。なお、仮想マシン名は同インベントリ内のホスト名及びクラスタ名と重複しないように設定をおこなってください。設定後、
［ 次へ ］ をクリックします。

(5) ［ ディスクのフォーマット ］ページが表示されます。
構成するディスクのフォーマットを選択し、［ 次へ ］をクリックします。
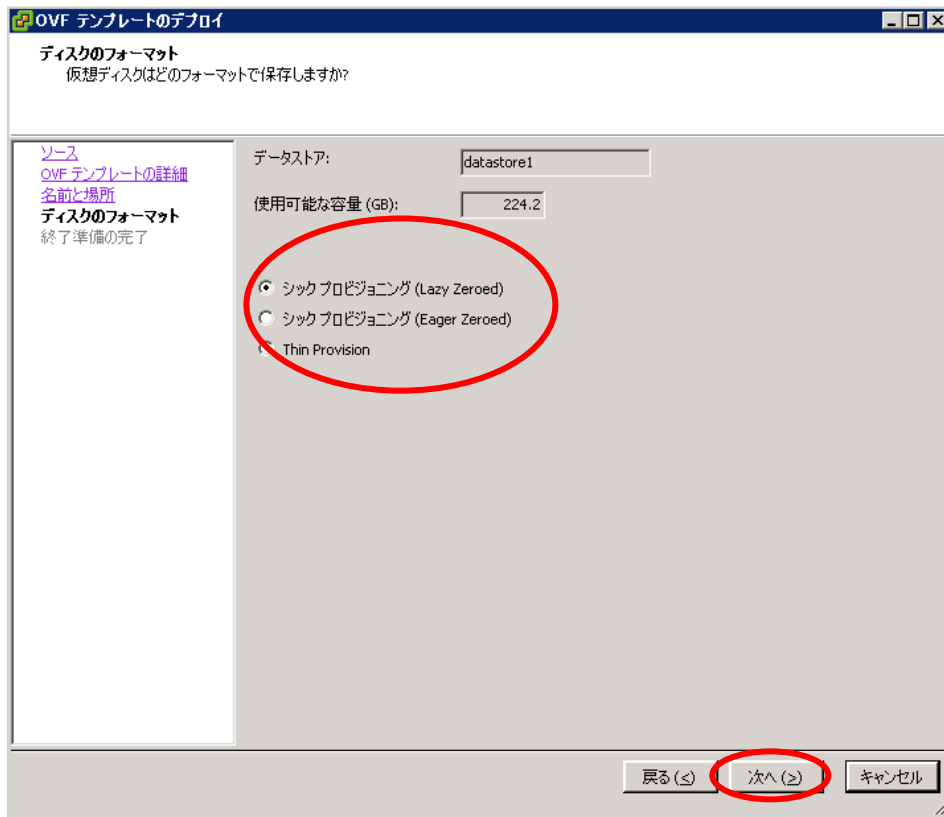
(6) ［ 終了準備の完了 ］ページが表示されます。
デプロイ設定を確認後、［ 終了 ］をクリックします。
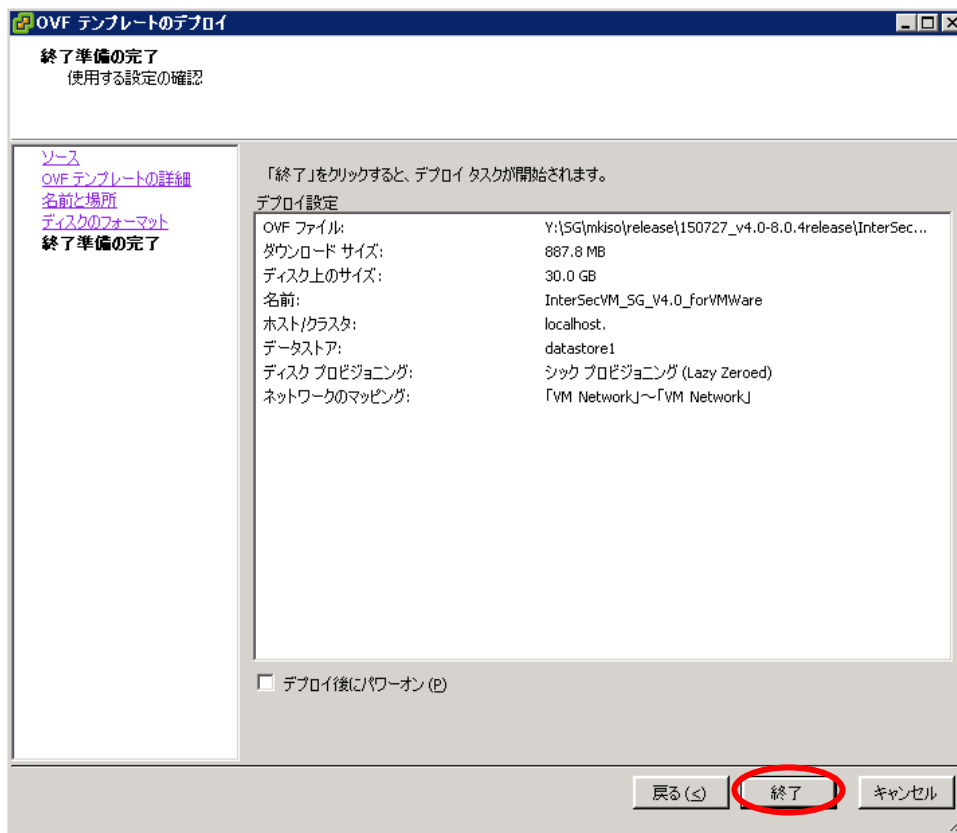
(7) デプロイが開始されます。
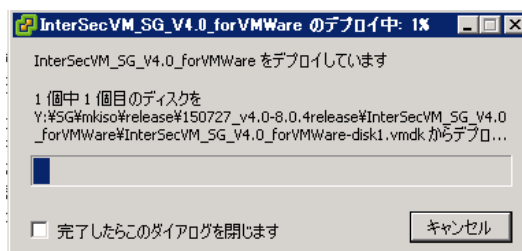
以下のように表示されたらデプロイは完了です。［ 閉じる ］をクリックします。
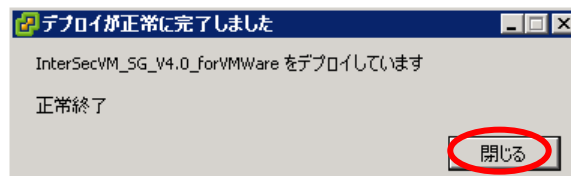
(8) InterSecVM/SGの設定を変更します。

インポートした仮想アプライアンス（仮想マシン）のネットワークアダプタが
重複しないよう、「ネットワークラベル」を変更してください。
変更が完了したら「OK」ボタンを押してください。

・ ネットワークアダプタ １、３～１０ →外部ネットワーク以外に属する
　InterSecVM/SGのインタフェース(内部インタフェース)
・ ネットワークアダプタ ２ →外部ネットワークに属するInterSecVM/SGのイ
　ンタフェース（外部インタフェース）

初期設定導入後に、ネットワークの変更があった場合は適宜本設定の見直し
が必要です。

10
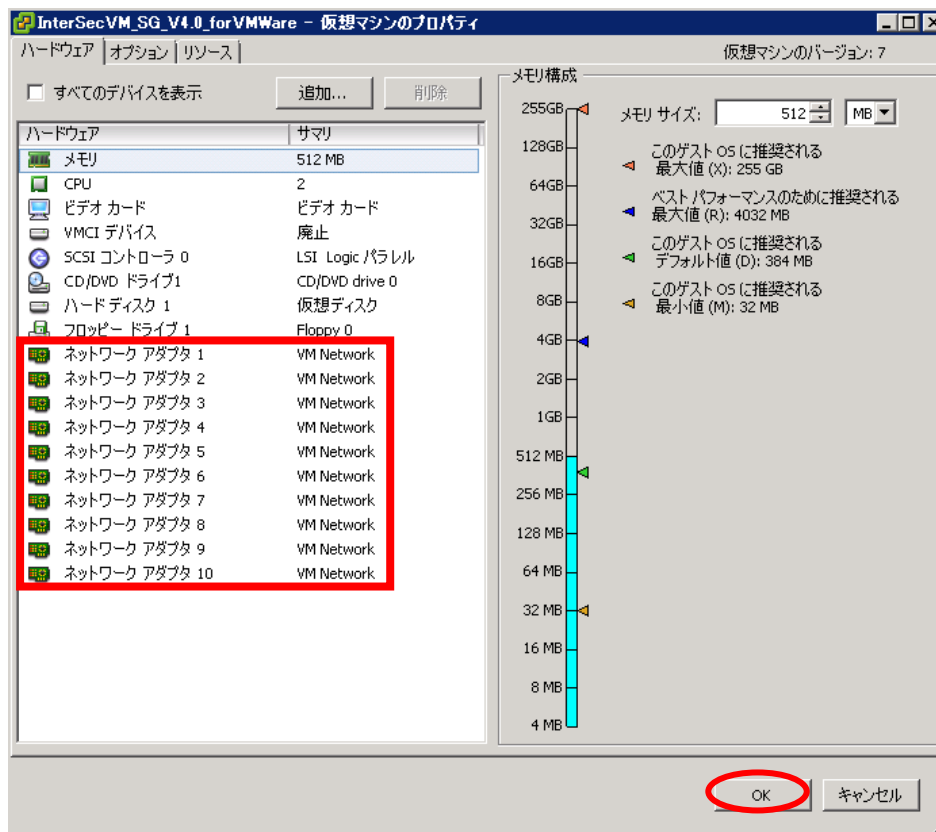
⑼ InterSecVM/SG起動確認を行います。
インポートした仮想アプライアンス（仮想マシン）をパワーオンし、
 vSphere Client の[コンソール]を表示して起動確認を行います。
仮想マシンを選択してパワーオンのボタンを押してください。
ログインプロンプトが表示されたら、InterSecVM/SG が正常に起動していま
す。
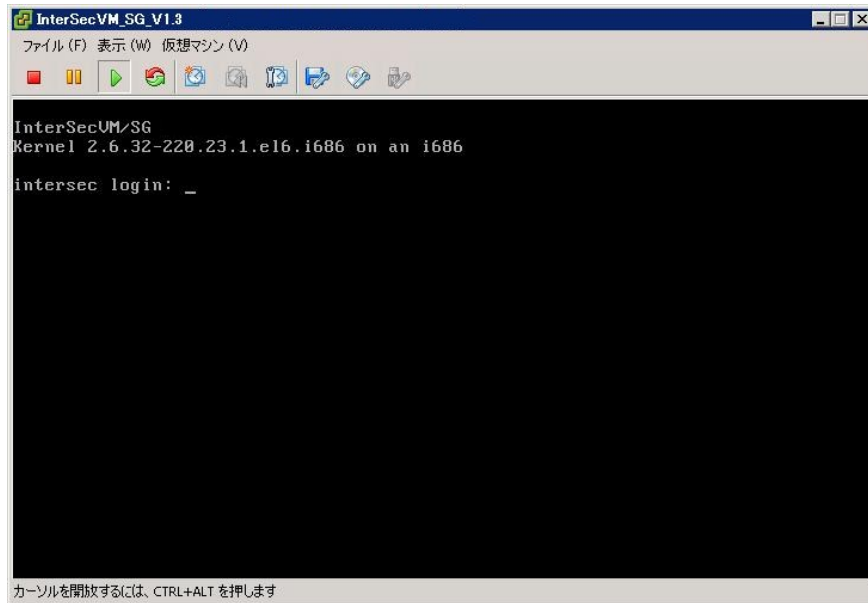
コンソールからカーソルを開放するには、<Ctrl>+<Alt> キーを同時に押します。

2.2. ブラウザを利用したvSphere Web ClientまたはvSphere Host Clientの場合

(1) ［ 仮想マシン ］-［ 仮想マシンの作成/登録 ］を選択します。
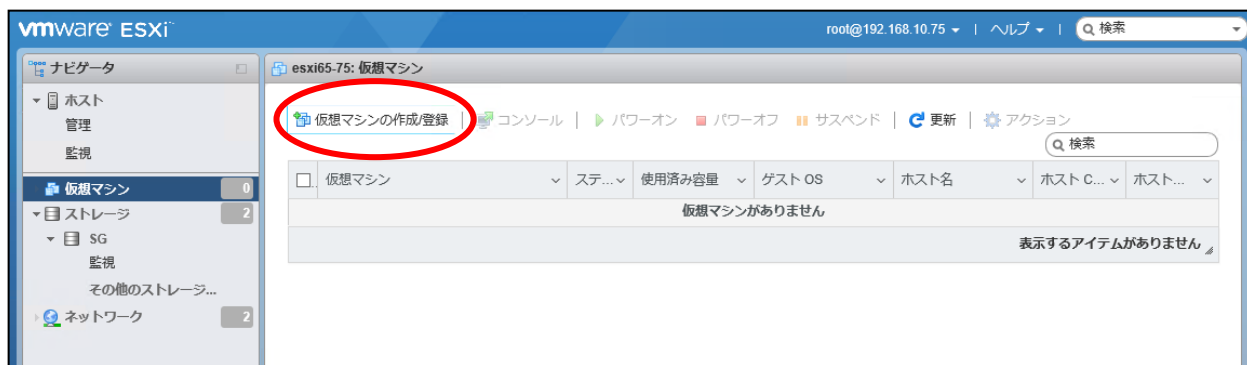
(2) ［ 作成タイプの選択]画面の[OVFファイルまたはOVAファイルから仮想マシンをデプロイ]を選択し、［ 次へ ］をクリックします。
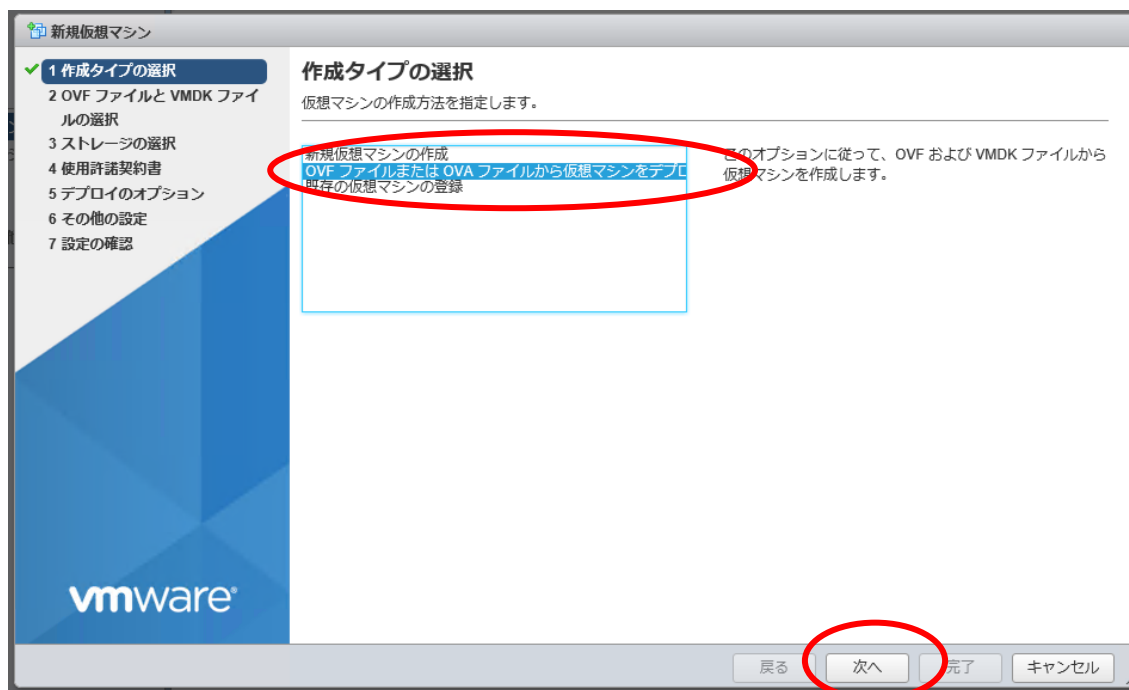
(3) ［ OVFファイルとVMDKファイルの選択 ］ページで、仮想マシンの名前を入力し、
ovfファイルとvmdkファイルを指定、［ 次へ ］をクリックします。
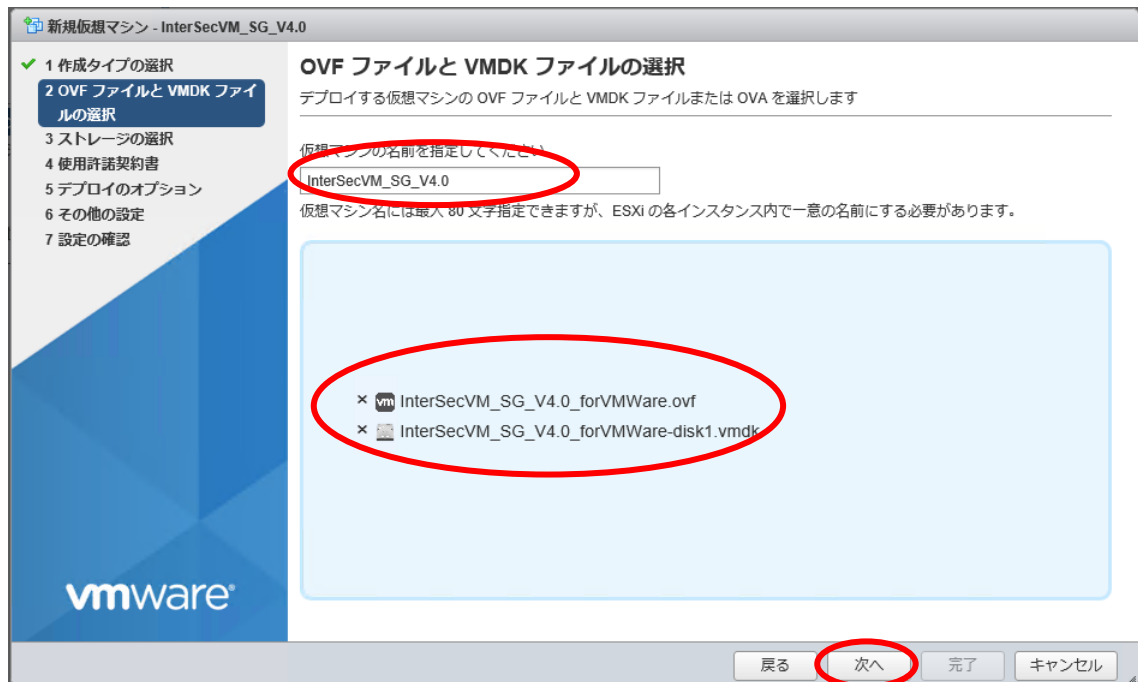
(4) ［ストレージの選択］ページで、任意のストレージを選択し、［ 次へ ］をクリック
します。
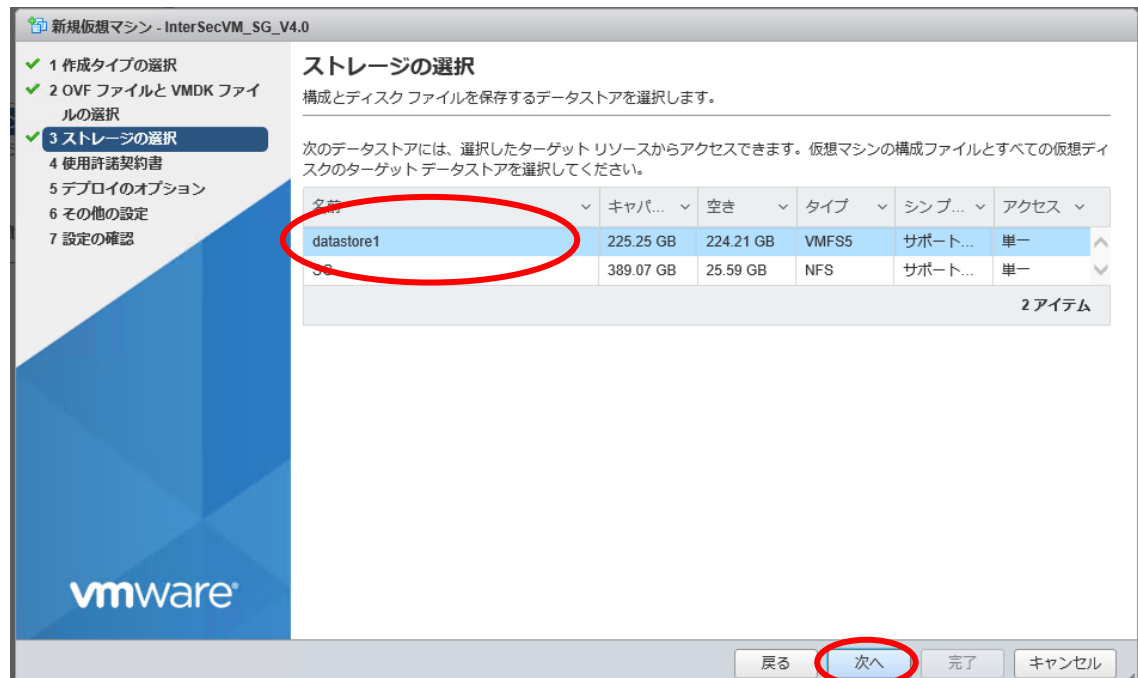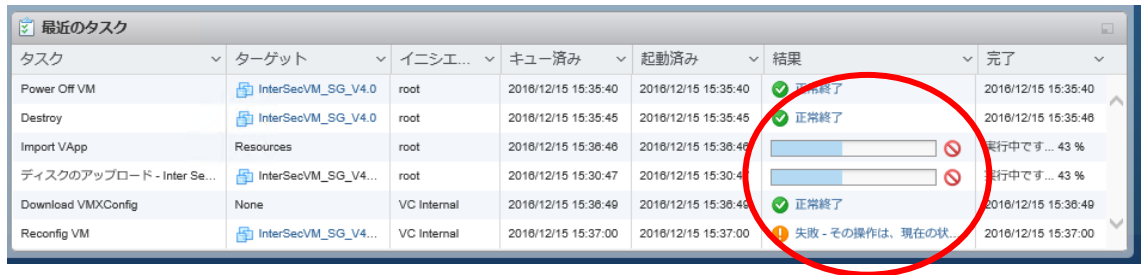
(5) ［ デプロイのオプション ］ ページで、ネットワークのマッピングとディスクプロビ
ジョニングを選択し、［ 次へ ］ をクリックします。
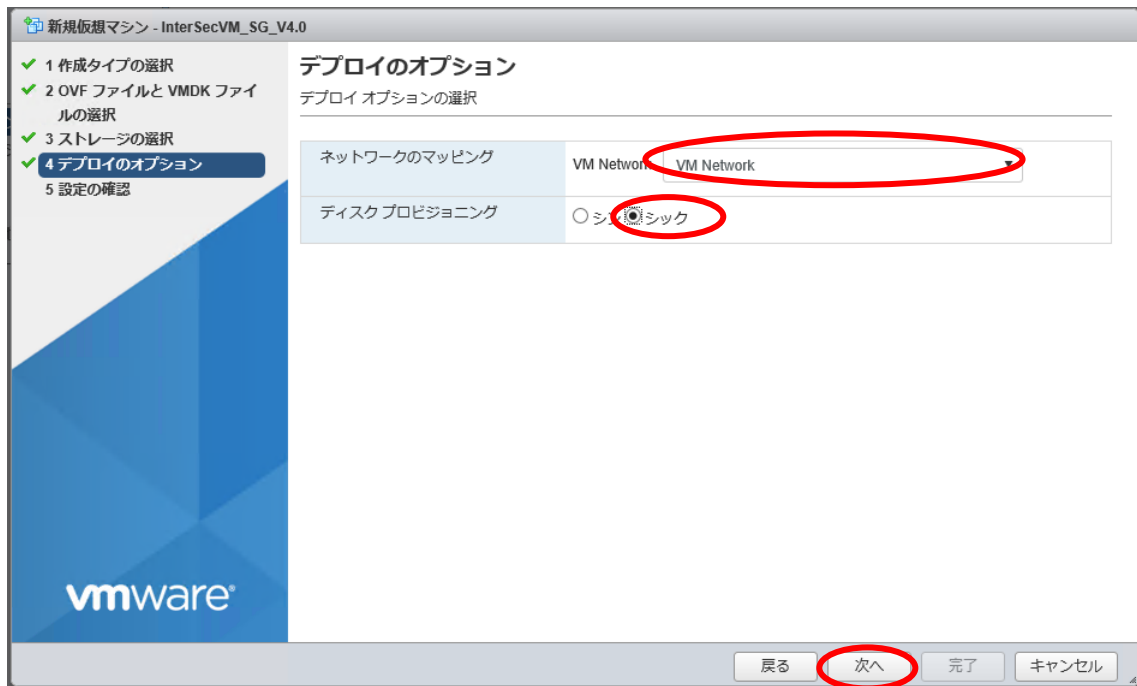
(6) ［ 設定の確認 ］ ページで、設定を確認し、問題なければ[完了]ボタンをクリッ
クします。

（7）最近のタスクで"実行中"の表示がなくなればデプロイ完了です。

（8）InterSecVM/SGの設定を変更します。

インポートした仮想アプライアンス（仮想マシン）のネットワークアダプタ
が重複しないよう、「ネットワークラベル」を変更してください。
「ネットワークラベル」は仮想マシンの「アクション」-「設定の編集」-
「仮想ハードウェア」で設定できます。
変更が完了したら[保存]ボタンをクリックします。
ネットワークアダプタ　１、３～１０　→内部ネットワーク
ネットワークアダプタ　２　→外部ネットワーク
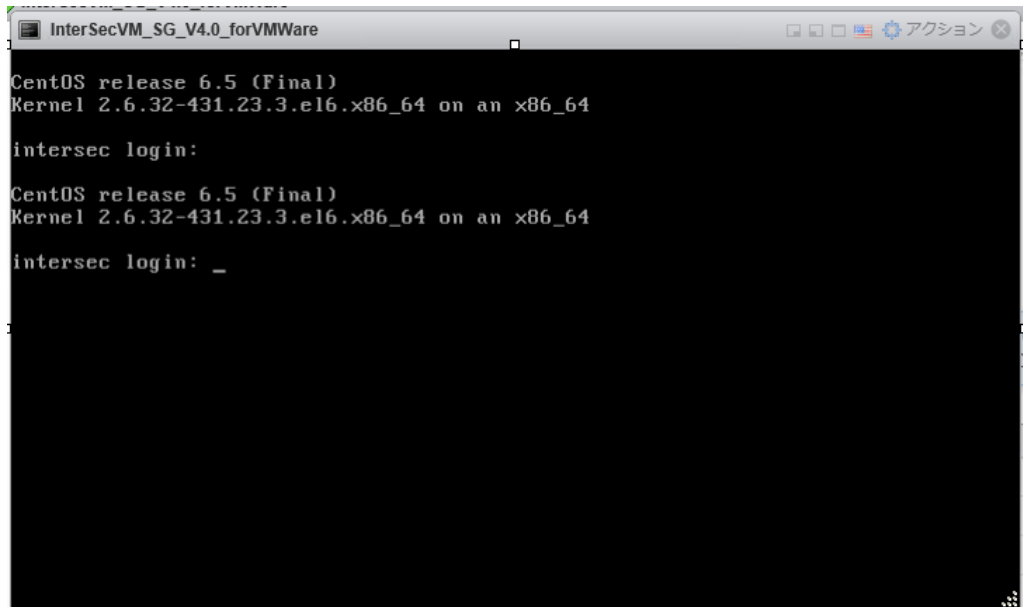
初期設定導入後に、ネットワークの変更があった場合は適宜本設定の見直し
が必要です。
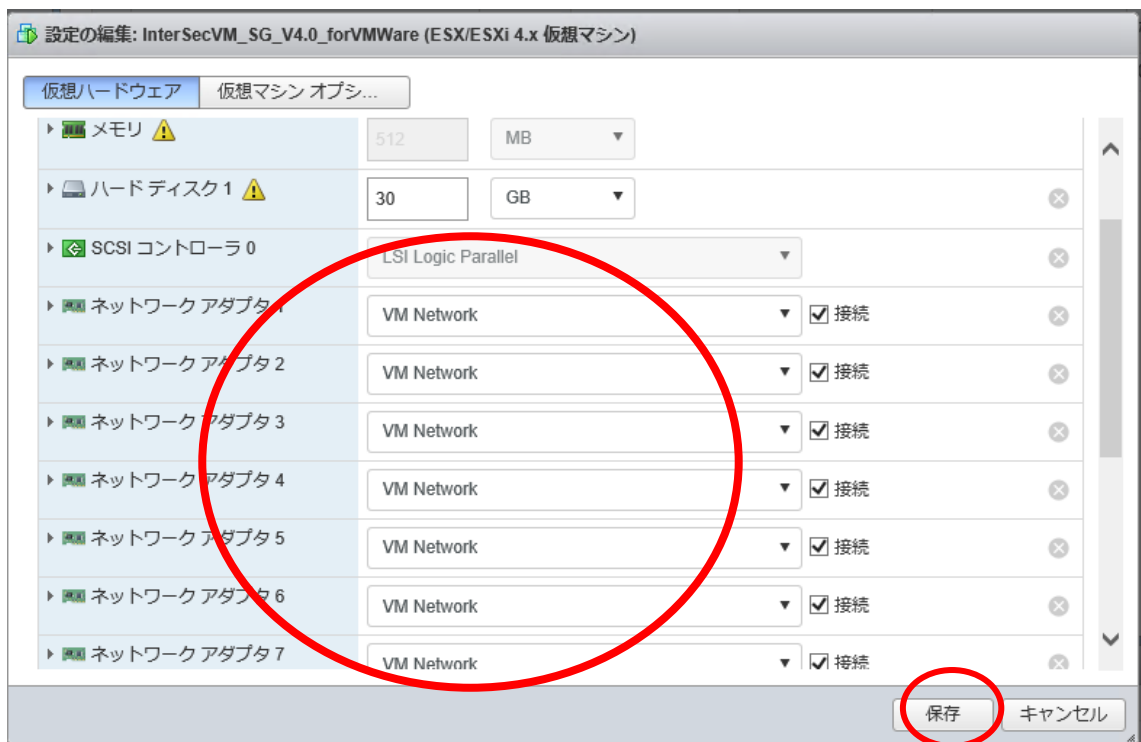
(9) InterSecVM/SG起動確認を行います。

インポートした仮想アプライアンス（仮想マシン）がパワーオンでない場合
パワーオンし、[コンソール]を表示して起動確認を行います。
仮想マシンを選択してパワーオンのボタンを押してください。
ログインプロンプトが表示されたら、InterSecVM/SG が正常に起動してい
ます。

＜補足＞

下記のような警告がでても動作上問題ございません。

"この仮想マシンに設定されたゲストOS(CentOS 4/5以降(64ビット)は、現在実行中のゲ
スト(CentOS 7(64ビット))と一致しません。ゲスト固有の最適化を許可するには、正し
いゲストOSを指定する必要があります。"

3 InterSecVM/SGの初期導入事前準備

前章で VMware vSphereにインポートした InterSecVM/SG は、お客様のネットワーク環境に即した状態にするために、初期導入を行っていただく必要があります。

3.1. InterSecVM/SGの初期導入環境について

InterSevVM/SGの初期導入は、別途用意いただく管理用Windows PC（以下、管理用PC）からWebブラウザを介して行います。
　InterSecVM/SG のネットワーク設定は、出荷状態では以下の初期設定が行われています。

> ネットワークラベル　　: VM Network
> IPアドレス　　　　　 : 192.168.250.251
> ネットワークマスク　 : 255.255.255.0
> ホスト名　　　　　　 : intersec.domain.local

初期導入を行うため、InterSecVM/SGと同じネットワークのIPアドレス（たとえば、192.168.250.1/255.255.255.0）を設定したWeb接続可能なクライアントPCを用意してください。

　※ハブを介して接続する場合は、InterSecVM/SGの上記のアドレスと他機器のIPアドレスが重複しないようご注意ください。

　※複数のInterSecVM/SGを導入する場合は、初期起動時のIPアドレス(192.168.250.251)が重複しないよう、1つずつ仮想ホストをインポートしてください。その後、初期導入でIPアドレスの変更を行ってください。初期導入前にIPアドレスの変更が必要でしたら、下記の手順にて、InterSecVM/SGのIPアドレスの変更を行うことも可能です。

> ① コンソールを開く。
> ② rootでログインを行う。
> ③ 右記のコマンドを入力する　　　　　　　 intersec-init-c
> ④ 画面に従い必要な情報を入力する。

Management Consoleへ接続する際、ご使用になるWebブラウザは、Internet Explorer(日本語版・Windows版)のバージョン11以上が必要です。

　Internet Explorerで下記の設定を行ってください。
　①[ツール]→[インターネットオプション]で以下のように設定してください。
　　・[セキュリティ]→[インターネット]を選択し[レベルのカスタマイズ]を押します。
　　　　-[スクリプト]→[アクティブ スクリプト]→「有効にする」を選択します。
　　　　-[その他]→[ページの自動読み込み]→「有効にする」を選択します。
　　・[詳細設定]→[セキュリティ]→「暗号化されたページをディスクに保存しない」のチェックを外します。
　　・[プライバシー]→ポップアップブロックの[設定]を「中」以下にします。

　② [ツール]→[互換表示設定]にて、InterSecVM/SGが互換性表示の対象とならないよう

に以下のように設定してください。
- "互換表示に追加したwebサイト"にInterSecVM/SGのIPアドレスを含めないようにします。
- "イントラネット サイトを互換性表示で表示する"をチェックしており、InterSecVM/SGがイントラネット サイトに含まれる場合は、InterSecVM/SGに接続時は本チェックを無効にします。

3.2. InterSecVM/SGの起動

InterSecVM/SG と管理用PCを接続した後、仮想マシンが起動していない場合は、起動
（パワーオン）してください。正常に起動するとコンソール画面に以下のようなログイン
プロンプトが表示されます。
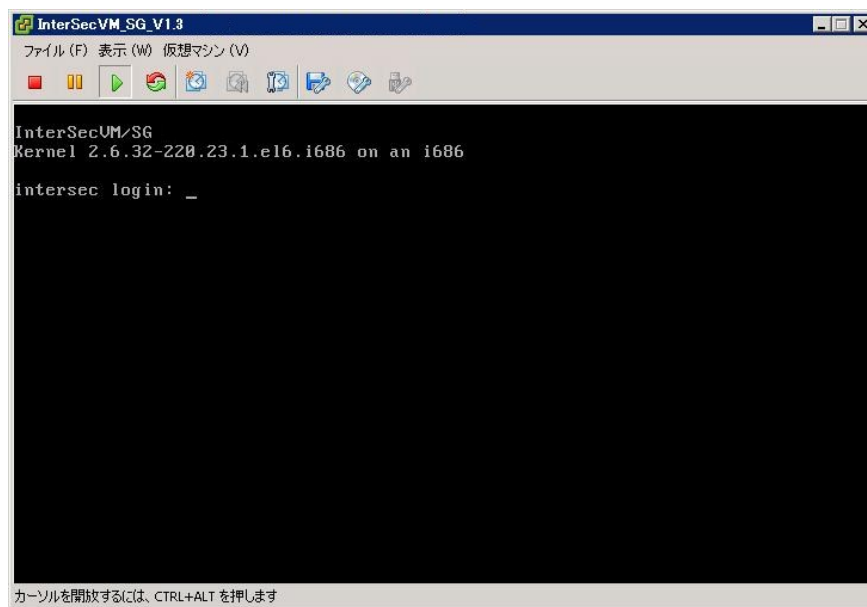
初期導入の具体的な手順は、次章を参照してください。

4 InterSecVM/SGの初期導入手順

4.1. 初期導入の流れ

InterSecVM/SGの初期導入の流れは以下のとおりです。運用するネットワーク環境に合わせて初期設定を行ってください。

```
┌─────────────────────────────────┐
│ (1) 初期設定の開始              │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ (2) 管理者設定                  │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ (3) ネットワーク設定（その１）  │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ (4) ネットワーク設定（その２）  │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ (5) 初期設定内容確認            │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ (6) システム再起動              │
└─────────────────────────────────┘
```
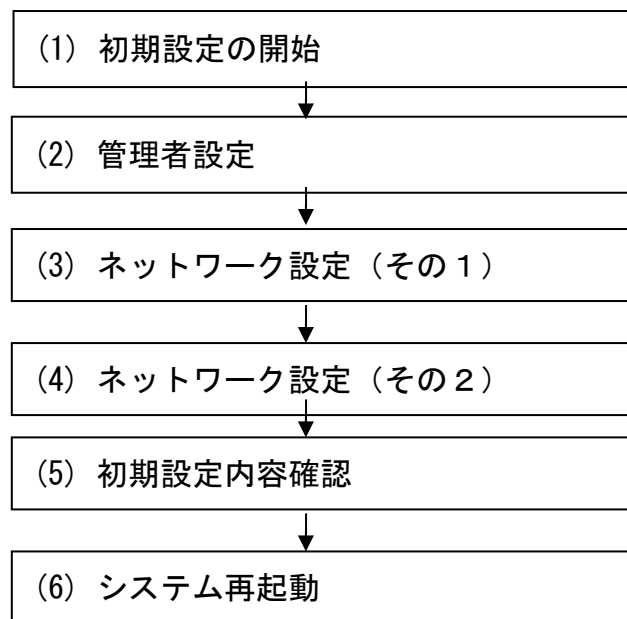
※正式なサポートライセンスは、初期導入完了後、Management Console画面の[ファイアウォール > ライセンス確認/登録]画面よりご登録ください。詳細は、ヘルプの[ファイアウォール機能の設定方法 > ライセンスの確認と登録]を参照ください。

4.2. 初期導入の実行

InterSecVM/SGの初期導入実行に際し、別途ご用意いただいた管理用PCのWebブラウザから InterSecVM/SG への接続、およびログインを行ってください。

■ InterSecVM/SG 初期導入画面への接続

InterSecVM/SG の初期導入画面には、管理用PCのWebブラウザで以下のURLを指定して接続してください。

https://192.168.250.251:18000/

セキュリティの警告が表示されますが、[このサイトの閲覧を続行する]を選択します。
なお、IEのバージョンによって表示される画面は異なりますので下記は一例となります。
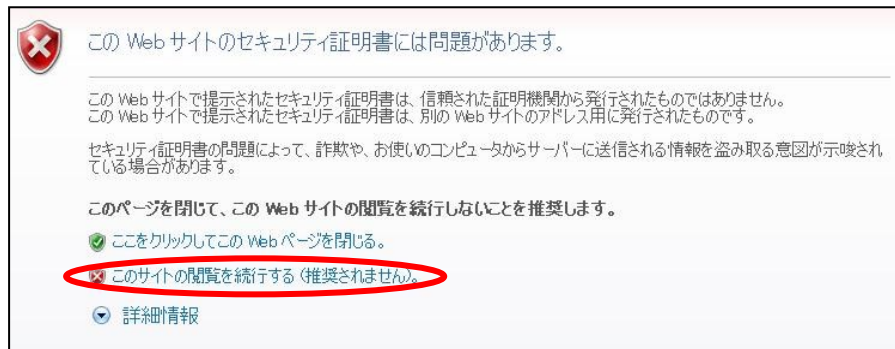
接続できない場合、管理用PC側から、ping コマンドなどを使用して通信状態を
確認してください。

　［実行例］C:¥> ping *192.168.250.251*

　　InterSecVM/SG と通信できない場合は、設定されているネットワークと接続できる
　　よう、管理用PCやVMware vSphereのネットワーク設定を確認してください。

■ InterSecVM/SG 初期導入画面へのログイン
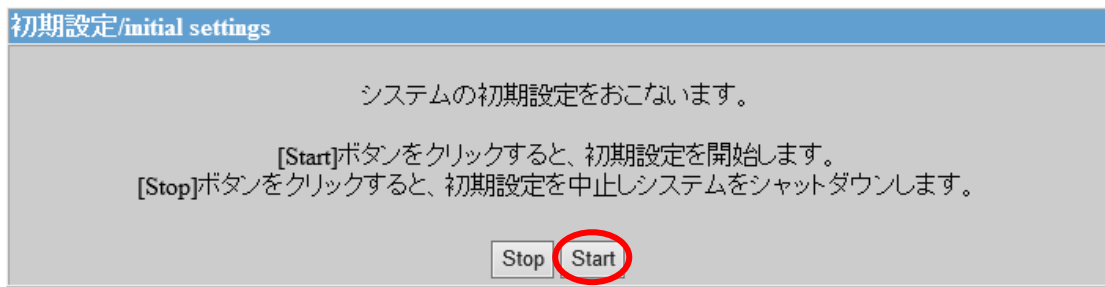
InterSecVM/SGの初期導入画面に接続すると、ユーザー名とパスワードの入力ダイアログが表示されます。
初期導入画面へのログインユーザー名は「root」です。パスワードは製品添付の管理者用パスワード.pdfを参照ください。

　※ユーザー名、パスワードは、大文字小文字を区別します。

(1) 初期設定の開始
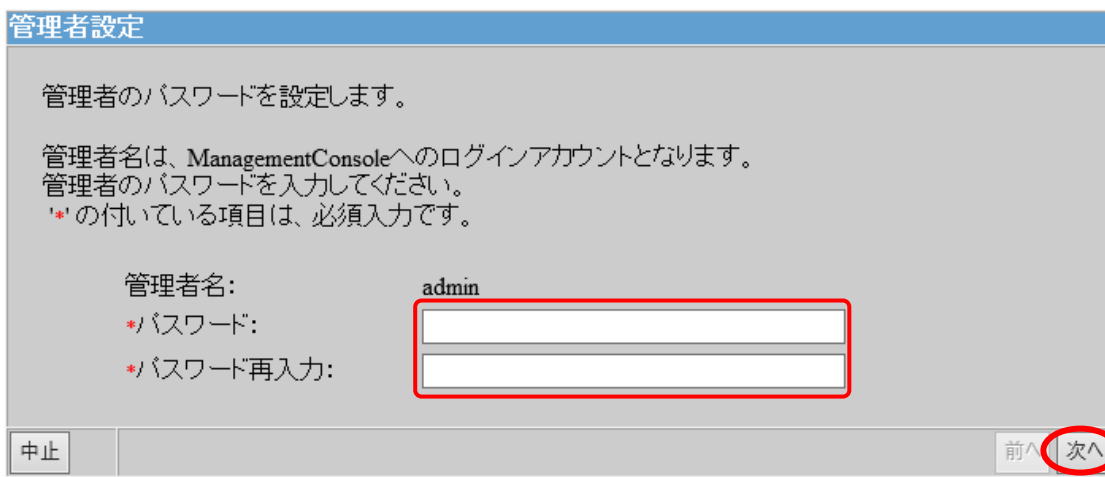
ログインが成功すると以下の画面が表示されます。［Start］をクリックし、初期導入を実施します。

※初期設定を中断したい場合は、各設定画面の［中止］をクリックします。

(2) 管理者設定

管理者のパスワードの設定を行います。
システム管理者のアカウントは "admin"（固定）です。
システム管理者用のパスワードを「パスワード」「パスワード再入力」に入力して［次へ］をクリックします。　システム管理者名のパスワードの指定は必須です。

※システム管理者のアカウントは、初期導入完了後Management Console画面で変更できます。

⑶ ネットワーク設定（その１）

お客様の内部ネットワークに合わせたネットワーク情報の設定を行います。
「ホスト名(FQDN)」にはセカンドレベル以上のドメイン名を含むホスト名を入力してください。
「ホスト名(FQDN)」、「eth0 IPアドレス」、「eth0 ネットマスク」、「デフォルトゲートウェイ」、「プライマリネームサーバ」、「セカンダリネームサーバ」に設定内容を入力し、[次へ] をクリックします。

※項目名の先頭に'*'があるものは必須入力です

項目名	設定内容
*　ホスト名(FQDN)	FQDNを設定します
*　eth0 IPアドレス	eth0のIPアドレスを設定します。内部インタフェースのIPアドレスとなります。
*　eth0 ネットマスク	ネットワークマスクを設定します
*　デフォルトゲートウェイ	デフォルトゲートウェイを設定します
プライマリネームサーバ	プライマリネームサーバを設定します
セカンダリネームサーバ	セカンダリネームサーバを設定します

ネットワーク設定(その1)

システムのネットワーク基本情報を設定します。

eth0のネットワーク、デフォルトゲートウェイ、名前解決(DNS)サーバの設定をおこないます。
'*'の付いている項目は、必須入力です。

*ホスト名(FQDN):

*eth0 IPアドレス:

*eth0 ネットマスク:
- ○ 255.255.255.128
- ● 255.255.255.0
- ○ 255.255.128.0
- ○ 255.255.0.0
- ○ 255.128.0.0
- ○ 255.0.0.0
- ○

*デフォルトゲートウェイ:

プライマリネームサーバ:

セカンダリネームサーバ:

中止　　　　　　　　　　　　　　　　　　　　　　　　前へ　次へ

(4)ネットワーク設定（その２）

お客様の外部ネットワークに合わせたネットワーク情報の設定を行います。
「eth1 IPアドレス」、「eth1 ネットマスク」に設定内容を入力してください。
「管理者メールアドレス」、「操作可能ホスト」は、運用上の設定です。
設定内容を入力し、[次へ]をクリックします。

※ 項目名の先頭に'*'があるものは必須入力です。
※ 「操作可能ホスト」は、初期導入完了後、Management Console画面の[リモートメンテナンス]より追加することも可能です。
※ 外部ネットワークに属するInterSecVM/SGのインタフェース(外部インタフェース)は、初期設定時はeth1固定となります。初期設定後、かんたん設定において外部ネットワークを変更することで他のインタフェースを外部インタフェースとすることも可能です。

項目名	設定内容
*　eth1 IPアドレス	eth1のIPアドレスを設定します。外部インタフェースのIPアドレスとなります。
*　eth1 ネットマスク	ネットワークマスクを設定します
*　管理者メールアドレス	管理者メールアドレスを設定します。Webページ表示でエラーが発生した際に表示される画面に連絡先として掲載されます。デフォルトでroot@localhostが入力されていますが変更不要でしたらそのままご使用ください。
*　操作可能ホスト	運用時にManagement Consoleに接続する管理用PCのIPアドレスを設定します

ネットワーク設定(その2)

システムのネットワーク基本情報を設定します。

eth1のネットワーク、管理の設定をおこないます。
'*'の付いている項目は、必須入力です。

*eth1 IPアドレス: [　　　　　　　]
*eth1 ネットマスク:
　○ 255.255.255.128
　● 255.255.255.0
　○ 255.255.128.0
　○ 255.255.0.0
　○ 255.128.0.0
　○ 255.0.0.0
　○ [　　　　　　　]
*管理者メールアドレス: [root@localhost]
*操作可能ホスト: [　　　　　　　]

中止　　　　　　　　　　　　　　　　　　　前へ　次へ

24

(5) 初期設定内容確認

入力した設定内容を確認してください。
設定内容に間違いがなければ、[次へ] をクリックしてください。
間違いがある場合は、[前へ] をクリックして変更対象画面に戻り修正してください。

(6) システム再起動

設定を有効にしてシステムを運用可能な状態にするため、システムを再起動します。
[システムを再起動する] をクリックしてください。[システムを停止する] をクリック
した場合、システムは停止状態となります。

以上で、初期導入は終了です。

5 かんたん設定の実施

下記の操作を行いましたら、Management Consoleの「ファイアウォール>かんたん設定」を実施ください。かんたん設定の内容に変更がない場合は、「次へ」ボタンを選択して、進めてください。
・初期設定。ただしリストアを行う場合は「システム基本情報のリストア」後にのみ実施。
・システム基本情報のリストア
・基本設定の再起動必須項目を変更しInterSecVM/SGを再起動

6 パッチの適用

下記のホームページを参照しパッチを適用ください。

https://www.support.nec.co.jp/
【InterSecVM/SG】リリースパッチ一覧 v4.2

7 その他の設定

7.1. ファイアウォールやその他サービスの設定について

ファイアウォール機能やその他サービスの設定については、InterSecVM/SGのManagementConsoleのヘルプをご参照ください。

7.2. ftp複数ポートの設定方法

本節では、InterSecVM/SGに登録するファイアウォールルールに指定するftp通信において、ftpサーバーの制御ポートがデフォルトの21ではないときの設定手順を説明しています。

例として、以下の制御ポートを設定するときの手順を示します。

ftpサーバーの制御ポート番号
21
10021
20021

(1)[ファイアウォール > 詳細設定 > ルール設定(サービス)]画面で、
以下のユーザ定義サービスを追加してください。

名前）FTP
メンバ）tcp/21, tcp/10021, tcp/20021

(2)システム再起動をすることにより設定が反映されます。

7.3. メモリの追加

InterSecVM/SG のご利用内容（起動するサービス）によっては、初期状態のメモリ容量（2GB）では不足する場合があります。必要に応じて最大4GBまでメモリ容量を変更することができます。仮想マシンのメモリの変更方法はVMWareのマニュアル等を参照してください。
※メモリ容量の変更は、InterSecVM/SG をシャットダウンしてから行ってください。

7.4. VMwareの時刻同期の完全無効化

InterSecVM/SGの時刻を、VMwareホストマシンの時刻より早い時刻に設定し、InterSecVM/SGを再起動した場合、InterSecVM/SGの時刻がVMwareホストマシンの時刻に補正されるという現象が発生します。これは、VMwareの仕様となります。
VMwareホストマシンの時刻より早い時刻に設定され、且つNTPサーバーなどを使用されない場合は、下記のホームページを参照し、設定を行ってください。詳細につきましては、VMWareのマニュアル等を参照してください。
https://kb.vmware.com/s/article/1189?lang=ja

8 注意事項

1. 1台の PC で複数の Management Console を同時に開かないでください。

2. 同一アカウントを使用した同時複数ログインは、サポートしておりません。

3. マニュアルに記載されていない VMware の設定を行われた場合はサポート対象外となります。
   例）VMware Tools の時刻同期を使用するように変更した場合等

4. システム起動時のコンソールや OS のログに以下のメッセージが記録される場合がありますが、特に問題はございません。

   dm-0: WRITE SAME failed. Manually zeroing.

9 使用許諾

9.1. BSD Licence

9.2. GNU GENERAL PUBLIC LICENSE Version 2

that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new

free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software,or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps:(1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying

it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".)

Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope.The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program(independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program,and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the

date of
any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived
  from the
Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms o
f this
License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started
  running for such interactive use in the most ordinary way, to print or display an announcement including
an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a
  warranty) and that users may redistribute the program under these conditions, and telling the user how to
  view a copy of this License.(Exception: if the Program itself is interactive but does not normally print
such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not de
rived from the Program, and can be reasonably considered independent and separate works in themselves, the
n this License, and its terms, do not apply to those sections when you distribute them as separate works.
But when you distribute the same sections as part of a whole which is a work based on the Program, the dis
tribution of the whole must be on the terms of this License, whose permissions for other licensees extend
to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely
  by you; rather,
the intent is to exercise the right to control the distribution of derivative or collective works based on
  the Program.

In addition, mere aggregation of another work not based on the Program with the Program(or with a work bas
ed on the Program) on a volume of a storage or distribution medium does not bring the other work under the
  scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or exec
utable
form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed un
der
  the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charg
e no more
  than your cost of physically performing source distribution, a complete machine-readable copy of the cor
  responding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customar
  ily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code.
 (This
  alternative is allowed only for noncommercial distribution and only if you received the program in objec
t code or
  executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an exe

31

cutable

work, complete source code means all the source code for all modules it contains, plus any associated inte
rface definition files, plus the scripts used to control compilation and installation of the executable. H
owever, as a special

exception, the source code distributed need not include anything that is normally distributed (in either s
ource or

binary form) with the major components (compiler, kernel, and so on) of the operating system on which the
executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, t
hen offering

equivalent access to copy the source code from the same place counts as distribution of the source code, e
ven though

third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this
 License.
Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automaticall
y terminate your rights under this License. However, parties who have received copies, or rights, from you
 under this License will not have their licenses terminated so long as such parties remain in full complia
nce.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants
 you permission to modify or distribute the Program or its derivative works. These actions are prohibited
by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work
 based on the Program), you indicate your acceptance of this License to do so, and all its terms and condi
tions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically
receives
a license from the original licensor to copy, distribute or modify the Program subject to these terms and
conditions.
You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You
are not
responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason
(not limited
to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that con
tradict the conditions of this License, they do not excuse you from the conditions of this License. If you
 cannot distribute so as to satisfy simultaneously your obligations under this License and any other perti
nent obligations, then as a consequence you may not distribute the Program at all. For example, if a paten
t license would not permit royalty-free redistribution of the Program by all those who receive copies dire
ctly or indirectly through you, then the only way you could satisfy both it and this License would be to r
efrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the bal
ance of the
section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims
 or to contest validity of any such claims; this section has the sole purpose of protecting the integrity
of the free software distribution system, which is implemented by public license practices. Many people ha
ve made generous contributions to the wide range of software distributed through that system in reliance o

n consistent application of that system; it is up to the author/donor to decide if he or she is willing to
 distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this
 License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or b
y copyrighted
interfaces, the original copyright holder who places the Program under this License may add an explicit ge
ographical
distribution limitation excluding those countries, so that distribution is permitted only in or among coun
tries not thus excluded. In such case, this License incorporates the limitation as if written in the body
of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from
 time
to time. Such new versions will be similar in spirit to the present version, but may differ in detail to a
ddress new
problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this L
icense
which applies to it and "any later version", you have the option of following the terms and conditions eit
her of that
version or of any later version published by the Free Software Foundation. If the Program does not specify
 a version
number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions
 are different,write to the author to ask for permission. For software which is copyrighted by the Free So
ftware Foundation,write to the Free Software Foundation; we sometimes make exceptions for this. Our decisi
on will be guided by the two goals of preserving the free status of all derivatives of our free software a
nd of promoting the sharing and reuse of software generally.

<div align="center">NO WARRANTY</div>

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE
PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED
IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS"
WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARR
ANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH
YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY
SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY
COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE
 LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL,INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT
 OF THE USE OR INABILITY TO
USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED
INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM
TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN
ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best w
ay to
achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each so
urce file to
most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line
 and a pointer to where the full notice is found.

        <one line to give the program's name and a brief idea of what it does.>
        Copyright (C) 19yy <name of author>

        This program is free software; you can redistribute it and/or modify
        it under the terms of the GNU General Public License as published by
        the Free Software Foundation; either version 2 of the License, or
        (at your option) any later version.

        This program is distributed in the hope that it will be useful,
        but WITHOUT ANY WARRANTY; without even the implied warranty of
        MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
        GNU General Public License for more details.

        You should have received a copy of the GNU General Public License
        along with this program; if not, write to the Free Software
        Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mo
de:

        Gnomovision version 69, Copyright (C) 19yy name of author
        Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
        This is free software, and you are welcome to redistribute it
        under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public Li
cense.
Of course, the commands you use may be called something other than `show w' and `show c'; they could even
be
mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyrig
ht disclaimer" for the program, if necessary. Here is a sample; alter the names:

    Yoyodyne, Inc., hereby disclaims all copyright interest in the program
    `Gnomovision' (which makes passes at compilers) written by James Hacker.

    <signature of Ty Coon>, 1 April 1989
    Ty Coon, President of Vice

34

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

9.3. GNU LESSER GENERAL PUBLIC LICENSE Version 2.1

GNU LESSER GENERAL PUBLIC LICENSE Version 2.1, February 1999
Copyright (C) 1991, 1999 Free Software Foundation, Inc.
           59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public
License, version 2, hence the version number 2.1.]

Preamble

 The licenses for most software are designed to take away your freedom to share and change it. By contrast, the
GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make
sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically
libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but
 we suggest you first think carefully about whether this license or the ordinary General Public License is
 the better strategy to use in any particular case, based on the explanations below.

 When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are
designed to make sure that you have the freedom to distribute copies of free software (and charge for this
 service if
you wish); that you receive source code or can get it if you want it; that you can change the software and
 use pieces of it in new free programs; and that you are informed that you can do these things.

 To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or
 to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if
 you distribute copies of the library or if you modify it.

 For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the
rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code
with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms
 so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which

gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the
library is modified by someone else and passed on, the recipients should know that what they have is not t
he original version,so that the original author's reputation will not be affected by problems that might b
e introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sur
e that a
company cannot effectively restrict the users of a free program by obtaining a restrictive license from a
patent holder.Therefore, we insist that any patent license obtained for a version of the library must be c
onsistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This
license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite diff
erent from the ordinary General Public License. We use this license for certain libraries in order to perm
it linking those libraries into non-free programs.

 When a program is linked with a library, whether statically or using a shared library, the combination of
 the two is legally speaking a combined work, a derivative of the original library. The ordinary General P
ublic License therefore permits such linking only if the entire combination fits its criteria of freedom.
The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedo
m than the
ordinary General Public License. It also provides other free software developers Less of an advantage over
 competing non-free programs. These disadvantages are the reason we use the ordinary General Public Licens
e for many libraries. However, the Lesser license provides advantages in certain special circumstances.

 For example, on rare occasions, there may be a special need to encourage the widest possible use of a cer
tain library,so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to
 use the library. A more frequent case is that a free library does the same job as widely used non-free li
braries. In this case, there is little to gain by limiting the free library to free software only, so we u
se the Lesser General Public License.

 In other cases, permission to use a particular library in non-free programs enables a greater number of p
eople to use a large body of free software. For example, permission to use the GNU C Library in non-free p
rograms enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Li
nux operating system.

 Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that
the user of a program that is linked with the Library has the freedom and the wherewithal to run that prog
ram using a modified version of the Library.

 The precise terms and conditions for copying, distribution and modification follow. Pay close attention t
o the difference between a "work based on the library" and a "work that uses the library". The former cont
ains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the
copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

 A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A
"work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a
work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files,plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its
scope. The act of running a program using the Library is not restricted, and output from such a program is covered
only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing
it). Whether that is true depends on what the Library does and what the program that uses the Library does.

 1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any
medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice
and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty;
and distribute a copy of this License along with the Library.
You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

 2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library,and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
    a) The modified work must itself be a software library.
    b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
    c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this
        License.
    d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-su pplied function or table used by this function must be optional: if the application does not supp ly it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not de rived from the Library, and can be reasonably considered independent and separate works in themselves, the n this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the dis tribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather,
the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work ba sed on the Library) on a volume of a storage or distribution medium does not bring the other work under th e scope of this
License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given
copy of the Library. To do this, you must alter all the notices that refer to this License, so that they r efer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer versio n than version 2 of the ordinary GNU General Public License has appeared, then you can specify that versio n instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Pu blic
License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a l ibrary.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object c ode or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the c omplete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.
 If distribution of object code is made by offering access to copy from a designated place, then offering equivalent
access to copy the source code from the same place satisfies the requirement to distribute the source cod e, even
though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the L ibrary by
being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivativ e of the
Library (because it contains portions of the Library), rather than a "work that uses the library". The exe

cutable is
therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for
the work may be a derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and
small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the
Library to produce a work containing portions of the Library, and distribute that work under terms of your choice,
provided that the terms permit modification of the work for the customer's own use and reverse engineering for
debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library",as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent

this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler,kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library
together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with
other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:
    a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any
    other library facilities. This must be distributed under the terms of the Sections above.
    b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this
License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions.You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited
to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the

section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted
interfaces, the original copyright holder who places the Library under this License may add an explicit geographical
distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License
from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to
address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License
which applies to it and "any later version", you have the option of following the terms and conditions either of that
version or of any later version published by the Free Software Foundation. If the Library does not specify a license
version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE
LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED
IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS"
WITHOUT WARRANTY OF ANYKIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED
TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH
YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING,REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY
COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE
LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL,

SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO
USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED
INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY
TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN
ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recomme
nd making it free software that everyone can redistribute and change. You can do so by permitting redistri
bution under these terms (or, alternatively, under the terms of the ordinary General Public License).

 To apply these terms, attach the following notices to the library. It is safest to attach them to the sta
rt of each source file to most effectively convey the exclusion of warranty; and each file should have at
least the "copyright" line and a pointer to where the full notice is found.

        <one line to give the library's name and a brief idea of what it does.>
        Copyright (C) <year> <name of author>

        This library is free software; you can redistribute it and/or
        modify it under the terms of the GNU Lesser General Public
        License as published by the Free Software Foundation; either
        version 2.1 of the License, or (at your option) any later version.

        This library is distributed in the hope that it will be useful,
        but WITHOUT ANY WARRANTY; without even the implied warranty of
        MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
        Lesser General Public License for more details.

        You should have received a copy of the GNU Lesser General Public
        License along with this library; if not, write to the Free Software
        Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.
You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the library, if
necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the
library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

9.4. GNU LESSER GENERAL PUBLIC LICENSE Version 3

GNU LESSER GENERAL PUBLIC LICENSE Version 3, 29 June 2007
Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/>

This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

   a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or
   b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

   a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.
   b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

   a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.
   b) Accompany the Combined Work with a copy of the GNU GPL and this license document.
   c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.
   d) Do one of the following:
      0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.
      1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.
   e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

   a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.
   b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

9.5. GNU GENERAL PUBLIC LICENSE Version 3

GNU GENERAL PUBLIC LICENSE Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.

The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program--to make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors. You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

"The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as

"you". "Licensees" and "recipients" may be individuals or organizations.

To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright p
ermission, other than the making of an exact copy. The resulting work is called a "modified version" of th
e earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or s
econdarily liable for infringement under applicable copyright law, except executing it on a computer or mo
difying a private copy. Propagation includes copying, distribution (with or without modification), making
available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Me
re interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a conve
nient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the
user that there is no warranty for the work (except to the extent that warranties are provided), that lic
ensees may convey the work under this License, and how to view a copy of this License. If the interface pr
esents a list of user commands or options, such as a menu, a prominent item in the list meets this criteri
on.

1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object
code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized sta
ndards body, or, in the case of interfaces specified for a particular programming language, one that is wi
dely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) i
s included in the normal form of packaging a Major Component, but which is not part of that Major Componen
t, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Int
erface for which an implementation is available to the public in source code form. A "Major Component", in
this context, means a major essential component (kernel, window system, and so on) of the specific operat
ing system (if any) on which the executable work runs, or a compiler used to produce the work, or an objec
t code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, i
nstall, and (for an executable work) run the object code and to modify the work, including scripts to cont
rol those activities. However, it does not include the work's System Libraries, or general-purpose tools o
r generally available free programs which are used unmodified in performing those activities but which are
not part of the work. For example, Corresponding Source includes interface definition files associated wi
th source files for the work, and the source code for shared libraries and dynamically linked subprograms
that the work is specifically designed to require, such as by intimate data communication or control flow
between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other part
s of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

  a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
  b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".
  c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms,

to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

    d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

    a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

    b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

    c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

    d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

    e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to

a typical or common use of that class of product, regardless of the status of the particular user or of t
he way in which the particular user actually uses, or expects or is expected to use, the product. A produc
t is a consumer product regardless of whether the product has substantial commercial, industrial or non-co
nsumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other
information required to install and execute modified versions of a covered work in that User Product from
a modified version of its Corresponding Source. The information must suffice to ensure that the continued
functioning of the modified object code is in no case prevented or interfered with solely because modific
ation has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Prod
uct, and the conveying occurs as part of a transaction in which the right of possession and use of the Use
r Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transac
tion is characterized), the Corresponding Source conveyed under this section must be accompanied by the In
stallation Information. But this requirement does not apply if neither you nor any third party retains the
 ability to install modified object code on the User Product (for example, the work has been installed in
ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide
support service, warranty, or updates for a work that has been modified or installed by the recipient, or
for the User Product in which it has been modified or installed. Access to a network may be denied when t
he modification itself materially and adversely affects the operation of the network or violates the rules
 and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be
 in a format that is publicly documented (and with an implementation available to the public in source cod
e form), and must require no special password or key for unpacking, reading or copying.

7. Additional Terms.
"Additional permissions" are terms that supplement the terms of this License by making exceptions from on
e or more of its conditions. Additional permissions that are applicable to the entire Program shall be tre
ated as though they were included in this License, to the extent that they are valid under applicable law.
 If additional permissions apply only to part of the Program, that part may be used separately under those
 permissions, but the entire Program remains governed by this License without regard to the additional per
missions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from t
hat copy, or from any part of it. (Additional permissions may be written to require their own removal in c
ertain cases when you modify the work.) You may place additional permissions on material, added by you to
a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if
authorized by the copyright holders of that material) supplement the terms of this License with terms:

    a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this
License; or
    b) Requiring preservation of specified reasonable legal notices or author attributions in that materia
      l or in the Appropriate Legal Notices displayed by works containing it; or
    c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions
      of such material be marked in reasonable ways as different from the original version; or

d) Limiting the use for publicity purposes of names of licensors or authors of the material; or

e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or

f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enfor

cing compliance by third parties with this License.

An "entity transaction" is a transaction transferring control of an organization, or substantially all as sets of one, or subdividing an organization, or merging organizations. If propagation of a covered work re sults from an entity transaction, each party to that transaction who receives a copy of the work also rece ives whatever licenses to the work the party's predecessor in interest had or could give under the previou s paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in in terest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights gr anted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or im porting the Program or any portion of it.

11. Patents.
A "contributor" is a copyright holder who authorizes use under this License of the Program or a work on w hich the Program is based. The work thus licensed is called the contributor's "contributor version".

A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, w hether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this L icense, of making, using, or selling its contributor version, but do not include claims that would be infr inged only as a consequence of further modification of the contributor version. For purposes of this defin ition, "control" includes the right to grant patent sublicenses in a manner consistent with the requiremen ts of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor 's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propa gate the contents of its contributor version.

In the following three paragraphs, a "patent license" is any express agreement or commitment, however den ominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to s ue for patent infringement). To "grant" such a patent license to a party means to make such an agreement o r commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a pu blicly available network server or other readily accessible means, then you must either (1) cause the Corr esponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent licen se for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. "Knowingly relying" means you have actual knowledg e that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by pr ocuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the cov ered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then t he patent license you grant is automatically extended to all recipients of the covered work and works base d on it.

A patent license is "discriminatory" if it does not include within the scope of its coverage, prohibits t he exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically g ranted under this License. You may not convey a covered work if you are a party to an arrangement with a t hird party that is in the business of distributing software, under which you make payment to the third par ty based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in con nection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primari ly for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

12. No Surrender of Others' Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the con ditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the onl y way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

13. Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered w ork with a work licensed under version 3 of the GNU Affero General Public License into a single combined w ork, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, co ncerning interaction through a network will apply to the combination as such.

14. Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License fr om time to time. Such new versions will be similar in spirit to the present version, but may differ in det ail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies that a certain numbered v ersion of the GNU General Public License "or any later version" applies to it, you have the option of foll owing the terms and conditions either of that numbered version or of any later version published by the Fr ee Software Foundation. If the Program does not specify a version number of the GNU General Public Licens e, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligation s are imposed on any author or copyright holder as a result of your choosing to follow a later version.

15. Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE ST

ATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTA BILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROG RAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAI R OR CORRECTION.

16. Limitation of Liability.

 IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY O THER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLU DING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAIN ED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH H OLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

17. Interpretation of Sections 15 and 16.

 If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effe ct according to their terms, reviewing courts shall apply local law that most closely approximates an abso lute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liab ility accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

  If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

  To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively state the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

      <one line to give the program's name and a brief idea of what it does.>
      Copyright (C) <year> <name of author>

      This program is free software: you can redistribute it and/or modify
      it under the terms of the GNU General Public License as published by
      the Free Software Foundation, either version 3 of the License, or
      (at your option) any later version.

      This program is distributed in the hope that it will be useful,
      but WITHOUT ANY WARRANTY; without even the implied warranty of
      MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
      GNU General Public License for more details.

      You should have received a copy of the GNU General Public License
      along with this program. If not, see <http://www.gnu.org/licenses/>.

Also add information on how to contact you by electronic and paper mail.

  If the program does terminal interaction, make it output a short notice like this when it starts in an interactive mode:
      <program> Copyright (C) <year> <name of author>
      This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
      This is free software, and you are welcome to redistribute it
      under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

  You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <http://www.gnu.org/licenses/>.

  The GNU General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License. But first, please read <http://www.gnu.org/philosophy/why-not-lgpl.html>.

See AUTHORS file for list of copyright holders.

Everything in src/lib/, src/auth/, src/lib-sql/ and src/lib-ntlm/ is under
MIT license (see COPYING.MIT) unless otherwise mentioned at the beginning
of the file.

Everything else is LGPLv2.1 (see COPYING.LGPL) unless otherwise mentioned
at the beginning of the file.
Current exceptions are:
src/lib/md5.c : Public Domain
src/lib/sha1.c and sha2.c:

 Copyright (C) 1995, 1996, 1997, and 1998 WIDE Project.
 Copyright (C) 2005, 2007 Olivier Gay <olivier.gay@a3.epfl.ch>

 All rights reserved.
 Redistribution and use in source and binary forms, with or without
 modification, are permitted provided that the following conditions
 are met:
 1. Redistributions of source code must retain the above copyright
    notice, this list of conditions and the following disclaimer.
 2. Redistributions in binary form must reproduce the above copyright
    notice, this list of conditions and the following disclaimer in the
    documentation and/or other materials provided with the distribution.
 3. Neither the name of the project nor the names of its contributors
    may be used to endorse or promote products derived from this software
    without specific prior written permission.

 THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS ``AS IS'' AND
 ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
 IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
 ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE
 FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL
 DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
 HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
 LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
 OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
 SUCH DAMAGE.
src/lib/UnicodeData.txt:
 Copyright (C) 1991-2007 Unicode, Inc. All rights reserved. Distributed
 under the Terms of Use in http://www.unicode.org/copyright.html.

 Permission is hereby granted, free of charge, to any person obtaining a
 copy of the Unicode data files and any associated documentation (the "Data
 Files") or Unicode software and any associated documentation (the
 "Software") to deal in the Data Files or Software without restriction,
 including without limitation the rights to use, copy, modify, merge,
 publish, distribute, and/or sell copies of the Data Files or Software, and
 to permit persons to whom the Data Files or Software are furnished to do
 so, provided that (a) the above copyright notice(s) and this permission

55

notice appear with all copies of the Data Files or Software, (b) both the
above copyright notice(s) and this permission notice appear in associated
documentation, and (c) there is clear notice in each modified Data File or
in the Software as well as in the documentation associated with the Data
File(s) or Software that the data or software has been modified.

THE DATA FILES AND SOFTWARE ARE PROVIDED "AS IS", WITHOUT WARRANTY OF ANY
KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF
MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF
THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS
INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR
CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF
USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER
TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR
PERFORMANCE OF THE DATA FILES OR SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall
not be used in advertising or otherwise to promote the sale, use or other
dealings in these Data Files or Software without prior written
authorization of the copyright holder.

                    GNU LESSER GENERAL PUBLIC LICENSE
                       Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
    59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts
 as the successor of the GNU Library Public License, version 2, hence
 the version number 2.1.]

                            Preamble

  The licenses for most software are designed to take away your
freedom to share and change it. By contrast, the GNU General Public
Licenses are intended to guarantee your freedom to share and change
free software--to make sure the software is free for all its users.

  This license, the Lesser General Public License, applies to some
specially designated software packages--typically libraries--of the
Free Software Foundation and other authors who decide to use it. You
can use it too, but we suggest you first think carefully about whether
this license or the ordinary General Public License is the better
strategy to use in any particular case, based on the explanations
below.

  When we speak of free software, we are referring to freedom of use,
not price. Our General Public Licenses are designed to make sure that
you have the freedom to distribute copies of free software (and charge

for this service if you wish); that you receive source code or can get
it if you want it; that you can change the software and use pieces of
it in new free programs; and that you are informed that you can do
these things.

  To protect your rights, we need to make restrictions that forbid
distributors to deny you these rights or to ask you to surrender these
rights. These restrictions translate to certain responsibilities for
you if you distribute copies of the library or if you modify it.

  For example, if you distribute copies of the library, whether gratis
or for a fee, you must give the recipients all the rights that we gave
you. You must make sure that they, too, receive or can get the source
code. If you link other code with the library, you must provide
complete object files to the recipients, so that they can relink them
with the library after making changes to the library and recompiling
it. And you must show them these terms so they know their rights.

  We protect your rights with a two-step method: (1) we copyright the
library, and (2) we offer you this license, which gives you legal
permission to copy, distribute and/or modify the library.

  To protect each distributor, we want to make it very clear that
there is no warranty for the free library. Also, if the library is
modified by someone else and passed on, the recipients should know
that what they have is not the original version, so that the original
author's reputation will not be affected by problems that might be
introduced by others.
^L
  Finally, software patents pose a constant threat to the existence of
any free program. We wish to make sure that a company cannot
effectively restrict the users of a free program by obtaining a
restrictive license from a patent holder. Therefore, we insist that
any patent license obtained for a version of the library must be
consistent with the full freedom of use specified in this license.

  Most GNU software, including some libraries, is covered by the
ordinary GNU General Public License. This license, the GNU Lesser
General Public License, applies to certain designated libraries, and
is quite different from the ordinary General Public License. We use
this license for certain libraries in order to permit linking those
libraries into non-free programs.

  When a program is linked with a library, whether statically or using
a shared library, the combination of the two is legally speaking a
combined work, a derivative of the original library. The ordinary
General Public License therefore permits such linking only if the
entire combination fits its criteria of freedom. The Lesser General
Public License permits more lax criteria for linking other code with
the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.
^L
                    GNU LESSER GENERAL PUBLIC LICENSE
     TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

  0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License").
Each licensee is addressed as "you".

  A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

  The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a

portion of it, either verbatim or with modifications and/or translated
straightforwardly into another language. (Hereinafter, translation is
included without limitation in the term "modification".)

   "Source code" for a work means the preferred form of the work for
making modifications to it. For a library, complete source code means
all the source code for all modules it contains, plus any associated
interface definition files, plus the scripts used to control
compilation and installation of the library.

   Activities other than copying, distribution and modification are not
covered by this License; they are outside its scope. The act of
running a program using the Library is not restricted, and output from
such a program is covered only if its contents constitute a work based
on the Library (independent of the use of the Library in a tool for
writing it). Whether that is true depends on what the Library does
and what the program that uses the Library does.

   1. You may copy and distribute verbatim copies of the Library's
complete source code as you receive it, in any medium, provided that
you conspicuously and appropriately publish on each copy an
appropriate copyright notice and disclaimer of warranty; keep intact
all the notices that refer to this License and to the absence of any
warranty; and distribute a copy of this License along with the
Library.

   You may charge a fee for the physical act of transferring a copy,
and you may at your option offer warranty protection in exchange for a
fee.

   2. You may modify your copy or copies of the Library or any portion
of it, thus forming a work based on the Library, and copy and
distribute such modifications or work under the terms of Section 1
above, provided that you also meet all of these conditions:

   a) The modified work must itself be a software library.

   b) You must cause the files modified to carry prominent notices
   stating that you changed the files and the date of any change.

   c) You must cause the whole of the work to be licensed at no
   charge to all third parties under the terms of this License.

   d) If a facility in the modified Library refers to a function or a
   table of data to be supplied by an application program that uses
   the facility, other than as an argument passed when the facility
   is invoked, then you must make a good faith effort to ensure that,
   in the event an application does not supply such function or
   table, the facility still operates, and performs whatever part of
   its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)

These requirements apply to the modified work as a whole. If
identifiable sections of that work are not derived from the Library,
and can be reasonably considered independent and separate works in
themselves, then this License, and its terms, do not apply to those
sections when you distribute them as separate works. But when you
distribute the same sections as part of a whole which is a work based
on the Library, the distribution of the whole must be on the terms of
this License, whose permissions for other licensees extend to the
entire whole, and thus to each and every part regardless of who wrote
it.

Thus, it is not the intent of this section to claim rights or contest
your rights to work written entirely by you; rather, the intent is to
exercise the right to control the distribution of derivative or
collective works based on the Library.

In addition, mere aggregation of another work not based on the Library
with the Library (or with a work based on the Library) on a volume of
a storage or distribution medium does not bring the other work under
the scope of this License.

  3. You may opt to apply the terms of the ordinary GNU General Public
License instead of this License to a given copy of the Library. To do
this, you must alter all the notices that refer to this License, so
that they refer to the ordinary GNU General Public License, version 2,
instead of to this License. (If a newer version than version 2 of the
ordinary GNU General Public License has appeared, then you can specify
that version instead if you wish.) Do not make any other change in
these notices.
^L
  Once this change is made in a given copy, it is irreversible for
that copy, so the ordinary GNU General Public License applies to all
subsequent copies and derivative works made from that copy.

  This option is useful when you wish to copy part of the code of
the Library into a program that is not a library.

  4. You may copy and distribute the Library (or a portion or
derivative of it, under Section 2) in object code or executable form
under the terms of Sections 1 and 2 above provided that you accompany
it with the complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

  5. A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a "work that uses the Library". Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

  However, linking a "work that uses the Library" with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a "work that uses the
library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

  When a "work that uses the Library" uses material from a header file
that is part of the Library, the object code for the work may be a
derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be
linked without the Library, or if the work is itself a library. The
threshold for this to be true is not precisely defined by law.

  If such an object file uses only numerical parameters, data
structure layouts and accessors, and small macros and small inline
functions (ten lines or less in length), then the use of the object
file is unrestricted, regardless of whether it is legally a derivative
work. (Executables containing this object code plus portions of the
Library will still fall under Section 6.)

  Otherwise, if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6,
whether or not they are linked directly with the Library itself.
^L
  6. As an exception to the Sections above, you may also combine or
link a "work that uses the Library" with the Library to produce a
work containing portions of the Library, and distribute that work
under terms of your choice, provided that the terms permit
modification of the work for the customer's own use and reverse
engineering for debugging such modifications.

  You must give prominent notice with each copy of the work that the
Library is used in it and that the Library and its use are covered by
this License. You must supply a copy of this License. If the work
during execution displays copyright notices, you must include the
copyright notice for the Library among them, as well as a reference
directing the user to the copy of this License. Also, you must do one

of these things:

  a) Accompany the work with the complete corresponding
  machine-readable source code for the Library including whatever
  changes were used in the work (which must be distributed under
  Sections 1 and 2 above); and, if the work is an executable linked
  with the Library, with the complete machine-readable "work that
  uses the Library", as object code and/or source code, so that the
  user can modify the Library and then relink to produce a modified
  executable containing the modified Library. (It is understood
  that the user who changes the contents of definitions files in the
  Library will not necessarily be able to recompile the application
  to use the modified definitions.)

  b) Use a suitable shared library mechanism for linking with the
  Library. A suitable mechanism is one that (1) uses at run time a
  copy of the library already present on the user's computer system,
  rather than copying library functions into the executable, and (2)
  will operate properly with a modified version of the library, if
  the user installs one, as long as the modified version is
  interface-compatible with the version that the work was made with.

  c) Accompany the work with a written offer, valid for at least
  three years, to give the same user the materials specified in
  Subsection 6a, above, for a charge no more than the cost of
  performing this distribution.

  d) If distribution of the work is made by offering access to copy
  from a designated place, offer equivalent access to copy the above
  specified materials from the same place.

  e) Verify that the user has already received a copy of these
  materials or that you have already sent this user a copy.

  For an executable, the required form of the "work that uses the
Library" must include any data and utility programs needed for
reproducing the executable from it. However, as a special exception,
the materials to be distributed need not include anything that is
normally distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on
which the executable runs, unless that component itself accompanies
the executable.

  It may happen that this requirement contradicts the license
restrictions of other proprietary libraries that do not normally
accompany the operating system. Such a contradiction means you cannot
use both them and the Library together in an executable that you
distribute.
^L
  7. You may place library facilities that are a work based on the
Library side-by-side in a single library together with other library

facilities not covered by this License, and distribute such a combined
library, provided that the separate distribution of the work based on
the Library and of the other library facilities is otherwise
permitted, and provided that you do these two things:

    a) Accompany the combined library with a copy of the same work
    based on the Library, uncombined with any other library
    facilities. This must be distributed under the terms of the
    Sections above.

    b) Give prominent notice with the combined library of the fact
    that part of it is a work based on the Library, and explaining
    where to find the accompanying uncombined form of the same work.

  8. You may not copy, modify, sublicense, link with, or distribute
the Library except as expressly provided under this License. Any
attempt otherwise to copy, modify, sublicense, link with, or
distribute the Library is void, and will automatically terminate your
rights under this License. However, parties who have received copies,
or rights, from you under this License will not have their licenses
terminated so long as such parties remain in full compliance.

  9. You are not required to accept this License, since you have not
signed it. However, nothing else grants you permission to modify or
distribute the Library or its derivative works. These actions are
prohibited by law if you do not accept this License. Therefore, by
modifying or distributing the Library (or any work based on the
Library), you indicate your acceptance of this License to do so, and
all its terms and conditions for copying, distributing or modifying
the Library or works based on it.

  10. Each time you redistribute the Library (or any work based on the
Library), the recipient automatically receives a license from the
original licensor to copy, distribute, link with or modify the Library
subject to these terms and conditions. You may not impose any further
restrictions on the recipients' exercise of the rights granted herein.
You are not responsible for enforcing compliance by third parties with
this License.
^L
  11. If, as a consequence of a court judgment or allegation of patent
infringement or for any other reason (not limited to patent issues),
conditions are imposed on you (whether by court order, agreement or
otherwise) that contradict the conditions of this License, they do not
excuse you from the conditions of this License. If you cannot
distribute so as to satisfy simultaneously your obligations under this
License and any other pertinent obligations, then as a consequence you
may not distribute the Library at all. For example, if a patent
license would not permit royalty-free redistribution of the Library by
all those who receive copies directly or indirectly through you, then
the only way you could satisfy both it and this License would be to
refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under
any particular circumstance, the balance of the section is intended to
apply, and the section as a whole is intended to apply in other
circumstances.

It is not the purpose of this section to induce you to infringe any
patents or other property right claims or to contest validity of any
such claims; this section has the sole purpose of protecting the
integrity of the free software distribution system which is
implemented by public license practices. Many people have made
generous contributions to the wide range of software distributed
through that system in reliance on consistent application of that
system; it is up to the author/donor to decide if he or she is willing
to distribute software through any other system and a licensee cannot
impose that choice.

This section is intended to make thoroughly clear what is believed to
be a consequence of the rest of this License.

  12. If the distribution and/or use of the Library is restricted in
certain countries either by patents or by copyrighted interfaces, the
original copyright holder who places the Library under this License
may add an explicit geographical distribution limitation excluding those
countries, so that distribution is permitted only in or among
countries not thus excluded. In such case, this License incorporates
the limitation as if written in the body of this License.

  13. The Free Software Foundation may publish revised and/or new
versions of the Lesser General Public License from time to time.
Such new versions will be similar in spirit to the present version,
but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library
specifies a version number of this License which applies to it and
"any later version", you have the option of following the terms and
conditions either of that version or of any later version published by
the Free Software Foundation. If the Library does not specify a
license version number, you may choose any version ever published by
the Free Software Foundation.
^L
  14. If you wish to incorporate parts of the Library into other free
programs whose distribution conditions are incompatible with these,
write to the author to ask for permission. For software which is
copyrighted by the Free Software Foundation, write to the Free
Software Foundation; we sometimes make exceptions for this. Our
decision will be guided by the two goals of preserving the free status
of all derivatives of our free software and of promoting the sharing
and reuse of software generally.

                            NO WARRANTY

                               64

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO
WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW.
EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR
OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY
KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE
IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE
LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME
THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN
WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY
AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU
FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR
CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE
LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING
RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A
FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF
SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH
DAMAGES.

                    END OF TERMS AND CONDITIONS
^L
            How to Apply These Terms to Your New Libraries

  If you develop a new library, and you want it to be of the greatest
possible use to the public, we recommend making it free software that
everyone can redistribute and change. You can do so by permitting
redistribution under these terms (or, alternatively, under the terms
of the ordinary General Public License).

  To apply these terms, attach the following notices to the library.
It is safest to attach them to the start of each source file to most
effectively convey the exclusion of warranty; and each file should
have at least the "copyright" line and a pointer to where the full
notice is found.

    〈one line to give the library's name and a brief idea of what it does.〉
    Copyright (C) 〈year〉 〈name of author〉

    This library is free software; you can redistribute it and/or
    modify it under the terms of the GNU Lesser General Public
    License as published by the Free Software Foundation; either
    version 2.1 of the License, or (at your option) any later version.

    This library is distributed in the hope that it will be useful,
    but WITHOUT ANY WARRANTY; without even the implied warranty of
    MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
    Lesser General Public License for more details.

                                65

You should have received a copy of the GNU Lesser General Public
License along with this library; if not, write to the Free Software
Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or
your school, if any, to sign a "copyright disclaimer" for the library,
if necessary. Here is a sample; alter the names:

  Yoyodyne, Inc., hereby disclaims all copyright interest in the
  library `Frob' (a library for tweaking knobs) written by James
  Random Hacker.

  <signature of Ty Coon>, 1 April 1990
  Ty Coon, President of Vice

That's all there is to it!

Permission is hereby granted, free of charge, to any person obtaining a
copy of this software and associated documentation files (the "Software"),
to deal in the Software without restriction, including without limitation
the rights to use, copy, modify, merge, publish, distribute, sublicense,
and/or sell copies of the Software, and to permit persons to whom the
Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in
all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE
AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER
LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING
FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER
DEALINGS IN THE SOFTWARE.

9.6. IBM PUBLIC LICENSE

IBM PUBLIC LICENSE VERSION 1.0 - SECURE MAILER SECURE MAILER

THE ACCOMPANYING PROGRAM IS PROVIDED UNDER THE TERMS OF THIS IBM PUBLIC
LICENSE ("AGREEMENT"). ANY USE, REPRODUCTION OR DISTRIBUTION OF THE
PROGRAM CONSTITUTES RECIPIENT'S ACCEPTANCE OF THIS AGREEMENT.

1. DEFINITIONS

"Contribution" means:

a) in the case of International Business Machines Corporation ("IBM"),
           the Original Program, and
        b) in the case of each Contributor,
           i) changes to the Program, and
           ii) additions to the Program;
                where such changes and/or additions to the Program originate
                from and are distributed by that particular Contributor.
                A Contribution 'originates' from a Contributor if it was added
                to the Program by such Contributor itself or anyone acting on
                such Contributor's behalf.
        Contributions do not include additions to the Program which:
           (i) are separate modules of software distributed in conjunction
                 with the Program under their own license agreement, and
           (ii) are not derivative works of the Program.

"Contributor" means IBM and any other entity that distributes the Program.

"Licensed Patents " mean patent claims licensable by a Contributor which
are necessarily infringed by the use or sale of its Contribution alone
or when combined with the Program.

"Original Program" means the original version of the software accompanying
this Agreement as released by IBM, including source code, object code
and documentation, if any.

"Program" means the Original Program and Contributions.

"Recipient" means anyone who receives the Program under this Agreement,
including all Contributors.

2. GRANT OF RIGHTS

    a) Subject to the terms of this Agreement, each Contributor hereby
    grants Recipient a non-exclusive, worldwide, royalty-free copyright
    license to reproduce, prepare derivative works of, publicly display,
    publicly perform, distribute and sublicense the Contribution of such
    Contributor, if any, and such derivative works, in source code and
    object code form.

    b) Subject to the terms of this Agreement, each Contributor hereby
    grants Recipient a non-exclusive, worldwide, royalty-free patent
    license under Licensed Patents to make, use, sell, offer to sell,
    import and otherwise transfer the Contribution of such Contributor,
    if any, in source code and object code form. This patent license
    shall apply to the combination of the Contribution and the Program
    if, at the time the Contribution is added by the Contributor, such
    addition of the Contribution causes such combination to be covered
    by the Licensed Patents. The patent license shall not apply to any
    other combinations which include the Contribution. No hardware per
    se is licensed hereunder.

c) Recipient understands that although each Contributor grants the
licenses to its Contributions set forth herein, no assurances are
provided by any Contributor that the Program does not infringe the
patent or other intellectual property rights of any other entity.
Each Contributor disclaims any liability to Recipient for claims
brought by any other entity based on infringement of intellectual
property rights or otherwise. As a condition to exercising the rights
and licenses granted hereunder, each Recipient hereby assumes sole
responsibility to secure any other intellectual property rights
needed, if any. For example, if a third party patent license
is required to allow Recipient to distribute the Program, it is
Recipient's responsibility to acquire that license before distributing
the Program.

d) Each Contributor represents that to its knowledge it has sufficient
copyright rights in its Contribution, if any, to grant the copyright
license set forth in this Agreement.

3. REQUIREMENTS

A Contributor may choose to distribute the Program in object code form
under its own license agreement, provided that:
    a) it complies with the terms and conditions of this Agreement; and
    b) its license agreement:
        i)   effectively disclaims on behalf of all Contributors all
             warranties and conditions, express and implied, including
             warranties or conditions of title and non-infringement, and
             implied warranties or conditions of merchantability and fitness
             for a particular purpose;
        ii) effectively excludes on behalf of all Contributors all
             liability for damages, including direct, indirect, special,
             incidental and consequential damages, such as lost profits;
        iii) states that any provisions which differ from this Agreement
             are offered by that Contributor alone and not by any other
             party; and
        iv) states that source code for the Program is available from
             such Contributor, and informs licensees how to obtain it in a
             reasonable manner on or through a medium customarily used for
             software exchange.

When the Program is made available in source code form:
    a) it must be made available under this Agreement; and
    b) a copy of this Agreement must be included with each copy of the
       Program.

Each Contributor must include the following in a conspicuous location
in the Program:

Copyright (c) 1997,1998,1999, International Business Machines
Corporation and others. All Rights Reserved.

68

In addition, each Contributor must identify itself as the originator of
its Contribution, if any, in a manner that reasonably allows subsequent
Recipients to identify the originator of the Contribution.

4. COMMERCIAL DISTRIBUTION

Commercial distributors of software may accept certain responsibilities
with respect to end users, business partners and the like. While this
license is intended to facilitate the commercial use of the Program, the
Contributor who includes the Program in a commercial product offering
should do so in a manner which does not create potential liability for
other Contributors.   Therefore, if a Contributor includes the Program in
a commercial product offering, such Contributor ("Commercial Contributor")
hereby agrees to defend and indemnify every other Contributor
("Indemnified Contributor") against any losses, damages and costs
(collectively "Losses") arising from claims, lawsuits and other legal
actions brought by a third party against the Indemnified Contributor to
the extent caused by the acts or omissions of such Commercial Contributor
in connection with its distribution of the Program in a commercial
product offering.   The obligations in this section do not apply to any
claims or Losses relating to any actual or alleged intellectual property
infringement.   In order to qualify, an Indemnified Contributor must:
    a) promptly notify the Commercial Contributor in writing of such claim,
and
    b) allow the Commercial Contributor to control, and cooperate with
       the Commercial Contributor in, the defense and any related
       settlement negotiations.   The Indemnified Contributor may
       participate in any such claim at its own expense.

For example, a Contributor might include the Program in a commercial
product offering, Product X.   That Contributor is then a Commercial
Contributor.   If that Commercial Contributor then makes performance
claims, or offers warranties related to Product X, those performance
claims and warranties are such Commercial Contributor's responsibility
alone.   Under this section, the Commercial Contributor would have to
defend claims against the other Contributors related to those performance
claims and warranties, and if a court requires any other Contributor to
pay any damages as a result, the Commercial Contributor must pay those
damages.

5. NO WARRANTY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PROGRAM IS PROVIDED
ON AN "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, EITHER
EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OR
CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A
PARTICULAR PURPOSE. Each Recipient is solely responsible for determining
the appropriateness of using and distributing the Program and assumes
all risks associated with its exercise of rights under this Agreement,
including but not limited to the risks and costs of program errors,
compliance with applicable laws, damage to or loss of data, programs or

equipment, and unavailability or interruption of operations.

6. DISCLAIMER OF LIABILITY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER RECIPIENT NOR
ANY CONTRIBUTORS SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT,
INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING
WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND ON ANY THEORY OF
LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING
NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION
OF THE PROGRAM OR THE EXERCISE OF ANY RIGHTS GRANTED HEREUNDER, EVEN IF
ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

7. GENERAL

If any provision of this Agreement is invalid or unenforceable under
applicable law, it shall not affect the validity or enforceability of
the remainder of the terms of this Agreement, and without further action
by the parties hereto, such provision shall be reformed to the minimum
extent necessary to make such provision valid and enforceable.

If Recipient institutes patent litigation against a Contributor with
respect to a patent applicable to software (including a cross-claim or
counterclaim in a lawsuit), then any patent licenses granted by that
Contributor to such Recipient under this Agreement shall terminate
as of the date such litigation is filed. In addition, If Recipient
institutes patent litigation against any entity (including a cross-claim
or counterclaim in a lawsuit) alleging that the Program itself (excluding
combinations of the Program with other software or hardware) infringes
such Recipient's patent(s), then such Recipient's rights granted under
Section 2(b) shall terminate as of the date such litigation is filed.

All Recipient's rights under this Agreement shall terminate if it fails
to comply with any of the material terms or conditions of this Agreement
and does not cure such failure in a reasonable period of time after
becoming aware of such noncompliance. If all Recipient's rights under
this Agreement terminate, Recipient agrees to cease use and distribution
of the Program as soon as reasonably practicable. However, Recipient's
obligations under this Agreement and any licenses granted by Recipient
relating to the Program shall continue and survive.

IBM may publish new versions (including revisions) of this Agreement
from time to time. Each new version of the Agreement will be given a
distinguishing version number. The Program (including Contributions)
may always be distributed subject to the version of the Agreement under
which it was received. In addition, after a new version of the Agreement
is published, Contributor may elect to distribute the Program (including
its Contributions) under the new version. No one other than IBM has the
right to modify this Agreement. Except as expressly stated in Sections
2(a) and 2(b) above, Recipient receives no rights or licenses to the
intellectual property of any Contributor under this Agreement, whether

expressly, by implication, estoppel or otherwise. All rights in the
Program not expressly granted under this Agreement are reserved.

This Agreement is governed by the laws of the State of New York and the
intellectual property laws of the United States of America. No party to
this Agreement will bring a legal action under this Agreement more than
one year after the cause of action arose. Each party waives its rights
to a jury trial in any resulting litigation.

9.7. The OpenLDAP Public License

The OpenLDAP Public License   Version 2.8, 17 August 2003
Redistribution and use of this software and associated documentation
("Software"), with or without modification, are permitted provided
that the following conditions are met:

1. Redistributions in source form must retain copyright statements
   and notices,

2. Redistributions in binary form must reproduce applicable copyright
   statements and notices, this list of conditions, and the following
   disclaimer in the documentation and/or other materials provided
   with the distribution, and

3. Redistributions must contain a verbatim copy of this document.

The OpenLDAP Foundation may revise this license from time to time.
Each revision is distinguished by a version number. You may use
this Software under terms of this license revision or under the
terms of any subsequent revision of the license.

THIS SOFTWARE IS PROVIDED BY THE OPENLDAP FOUNDATION AND ITS
CONTRIBUTORS ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES,
INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY
AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT
SHALL THE OPENLDAP FOUNDATION, ITS CONTRIBUTORS, OR THE AUTHOR(S)
OR OWNER(S) OF THE SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT,
INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING,
BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;
LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER
CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN
ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
POSSIBILITY OF SUCH DAMAGE.

The names of the authors and copyright holders must not be used in
advertising or otherwise to promote the sale, use or other dealing
in this Software without specific, written prior permission. Title

■　謝辞
LinusTorvalds氏をはじめとするLinuxに関わるすべての皆様に心より感謝いたします。

■弊社製品では、上記 Licenceに従いソースを公開しております。入手を希望される方は下記よりご連絡ください。

https://jpn.nec.com/intersec/contact.html?
「資料請求・お問い合わせ」