

Custom Password Encryption

TekRADIUS keeps passwords in the database using its proprietary reversible encryption method. You may need to implement your own password encryption in order to integrate with your existing application.

TekRADIUS allows you to use an external library for password encryption with SP license. This library must be implemented as a .NET .dll file and expose to public functions; Encrypt and Decrypt. Below a sample is shown in VB.NET;

```
Public Class EncSvc
    Public Function Encrypt(Key As String, Value As String) As String
        'Key is optional. You can pass an empty value if you use
        'your own hardcoded / external key for encryption
    End Function

    Public Function Decrypt(Key As String, Value As String) As String
        'Key is optional. You can pass an empty value if you use
        'your own hardcoded / external key for decryption
    End Function
End Class
```

Compiled file must be named as EncSvc.dll and signed with a valid certificate created for code signing. TekRADIUS will look up for existence of EncSvc.dll in application directory (*C:\Program Files (x86)\TekRADIUS e.g.*), check its digital signature and use it for password encryption / decryption functions if the signature is valid.

You must follow following procedure while deploying your EncSvc.dll;

1. Run **TekRADIUS Manager** and set **Password Protection** = "Clear Text" at Settings / DB Connection tab (*or Database for TekRADIUS LT*). TekRADIUS Manager will convert encrypted passwords into clear text in the database. This may cause TekRADIUS Manager interface freezes for momentarily.
2. Save settings. Stop **TekRADIUS Service** and quit **TekRADIUS Manager**.
3. Copy your EncSvc.dll to TekRADIUS application directory (*C:\Program Files (x86)\TekRADIUS e.g.*).
4. Run **TekRADIUS Manager** and set **Password Protection** = "Reversible Encryption" at Settings / DB Connection tab (*or Database tab for TekRADIUS LT*). TekRADIUS Manager will convert clear text passwords in to encrypted text in the database. This may cause TekRADIUS Manager interface freezes for momentarily.
5. Save settings and start TekRADIUS Service. You should see "'EncSvc.dll' is found, enabling custom encryption functions." Message if everything goes normally in TekRADIUS Manager / Log tab.

You can download template VB.NET project for EncSvc.dll from;

<https://www.kaplansoft.com/tekradius/release/EncSvc.zip>