Interoperation Guide
Vega with TeleCount Radius Server

Vega gateways support the delivery of Radius Accounting records to Radius Servers in order to log call detail records for billing or management statistics.

Vega Radius Accounting records conform to the standards, and so are compatible with many Radius Servers. This document describes the installation and configuration of one such standard Radius server – TeleCount from I.S. Associates Inc.

Pre-requisites

TeleCount server Version 5.01.00.069 or greater
TeleCount AAA Server Version 2.0.0.0 or greater
SQL server software (e.g. SQL Server Desktop)
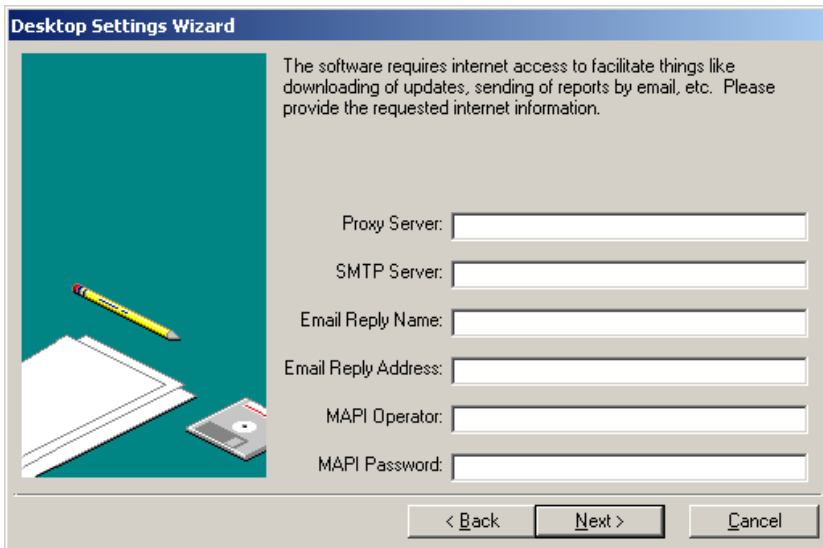
Install Telecount

Start by installing the TeleCount software by running tcsetup.exe (or tcsetupbeta.exe) and follow the on-screen instructions (see the supplied documentation "gettingstarted.pdf" for further details).

When asked, *do not* tick the "Load DCU on system start-up" check box.

Run telecount for the first time

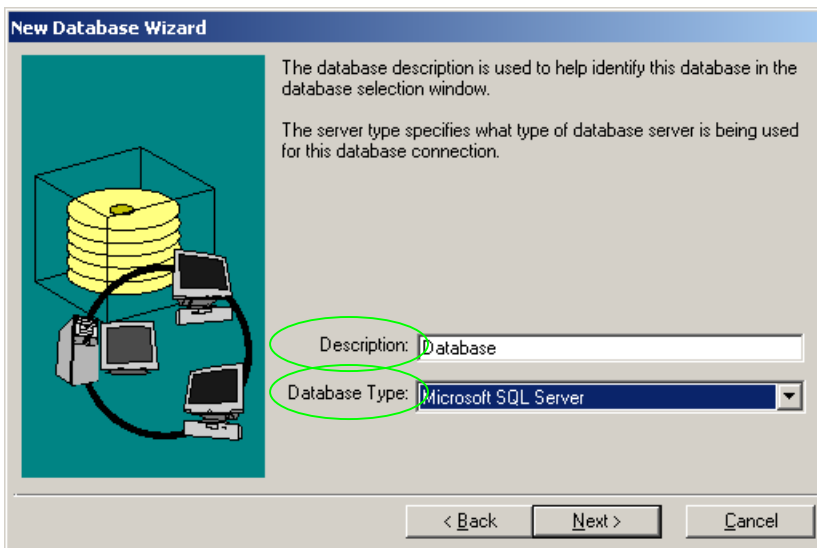Start up TeleCount (not the TeleCount Management Console).

When asked, the internet access page can be left blank:

Desktop Settings Wizard

The software requires internet access to facilitate things like downloading of updates, sending of reports by email, etc. Please provide the requested internet information.

Proxy Server: [   ]
SMTP Server: [   ]
Email Reply Name: [   ]
Email Reply Address: [   ]
MAPI Operator: [   ]
MAPI Password: [   ]

< Back   Next >   Cancel

Next the **Licence Wizard** starts up; complete as required.

The **New Database Wizard** then starts automatically.

New Database Wizard

The database description is used to help identify this database in the database selection window.

The server type specifies what type of database server is being used for this database connection.

Description: [Database]
Database Type: [Microsoft SQL Server ▼]

< Back   Next >   Cancel

Keep database Description and Database Type set to their default values

If you have an SQL database server already available skip this next part and continue at the section "**New Database Wizard** 2" below.
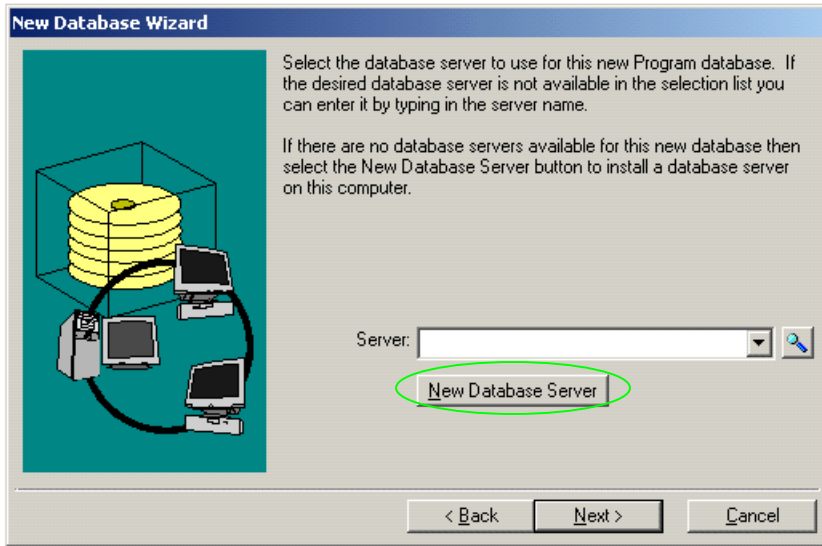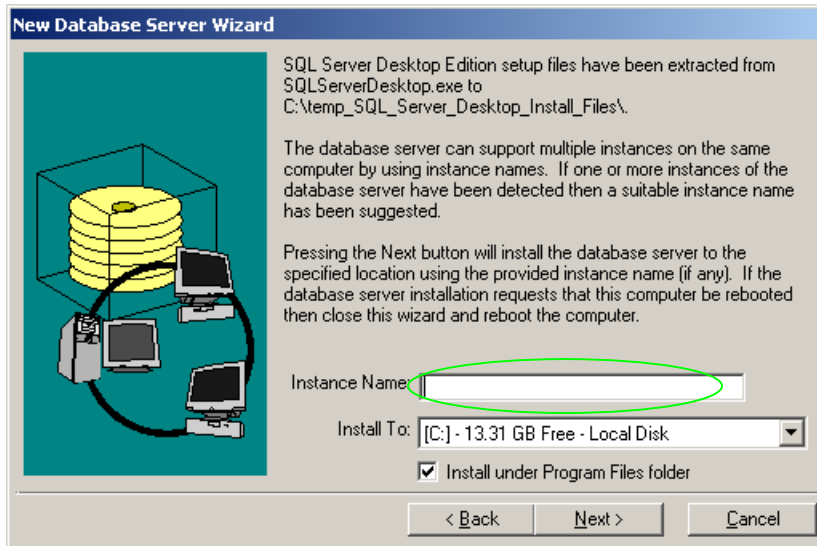
If you do not already have an SQL database server and plan to install SQL desktop, select the **New Database Server** button
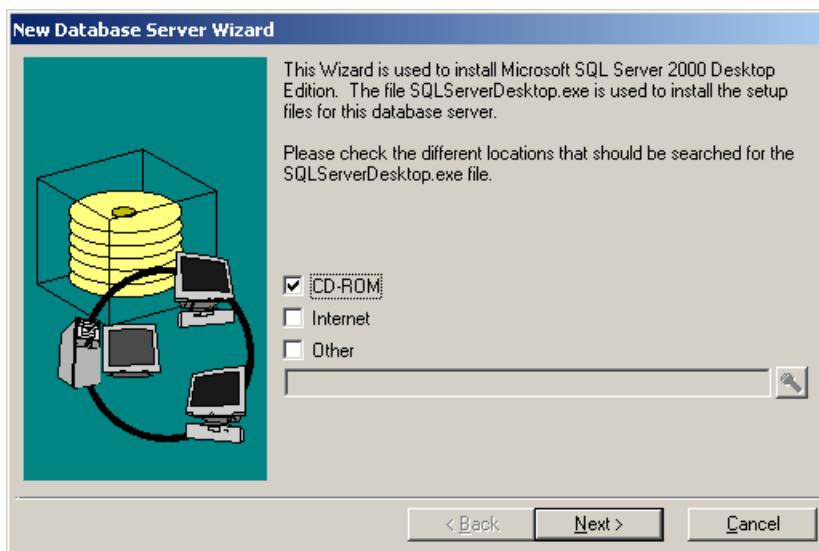
When asked, un-tick the "CD-Rom" check box and tick the "Other" check box; browse to the SQL desktop install files [SQLServerDesktop.exe]

Select **Open**, then click **Next >**

Give the SQL database server an instance name and note it down, e.g.:

Instance Name = SQLFORTELECOUNT

Leave the "Install Under Program Files folder" check box ticked

Don't believe the "Time Remaining" value – the PC may take a lot longer to do the install.

After loading the SQL server, reboot the PC and start up TeleCount again.

New Database Wizard (2):
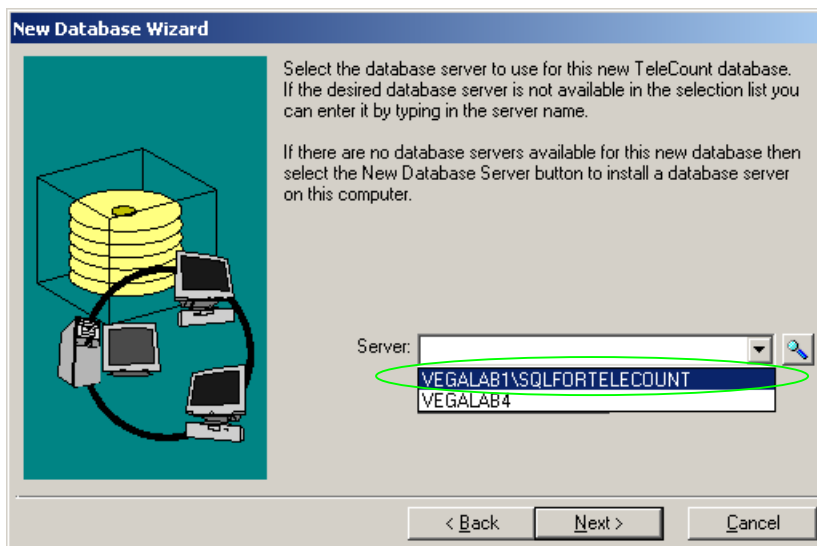
Select the just installed, or previously available instance of the server from the drop down list (or using the browse function).

Set up your own password for the server, by setting the User Name = sa and leaving the password field blank.

Ticking the "Share this user name and password" check box allows other installations of TeleCount to access the server without having to explicitly enter the SQL server username and password on each PC.

Click **Next >** and the change password screen will appear – set up your own password and note it down e.g.:
Password = telecount

When requested to select a database, select the New Database button to create a new database on the server just identified.

Note down the Database Name you give, e.g.:

Database Name = test_telecount_SQL_db

Click **Next >**

Note down the username and password you specify for this database, e.g.:

User Name = admin
Password = vega

Click **Finish** on the **New Database Wizard**

The **TeleCount login wizard** starts

Select "Database" and click **Next >** then enter the Operator Name and Password (these are the values just configured above, e.g.User Name = admin and Password = vega).

Choose billing type = postpaid

Install and configure services
- take defaults and also tick the **Process Radius Feed** entry
- Select each item in turn and click the Configure button – work through each of the configurations options. Accept defaults, except set up Process Radius Feed with 2 sessions.
- … expect an error message on one of the configurations

Click **Next >**

… expect and **OK** several error messages as the services are installed

Click **Finish**

Start up Telecount and log in

Set up DB Description, e.g "Telecount Billing Database"

Un-tick the "hierarchical structure" check box

Set Level 1 = Company, Region, Division, Department, CostCntr
Leave the other "Level" fields blank

Click **Next >**

Leave Hospitality set to **No** (this will be configured later on)
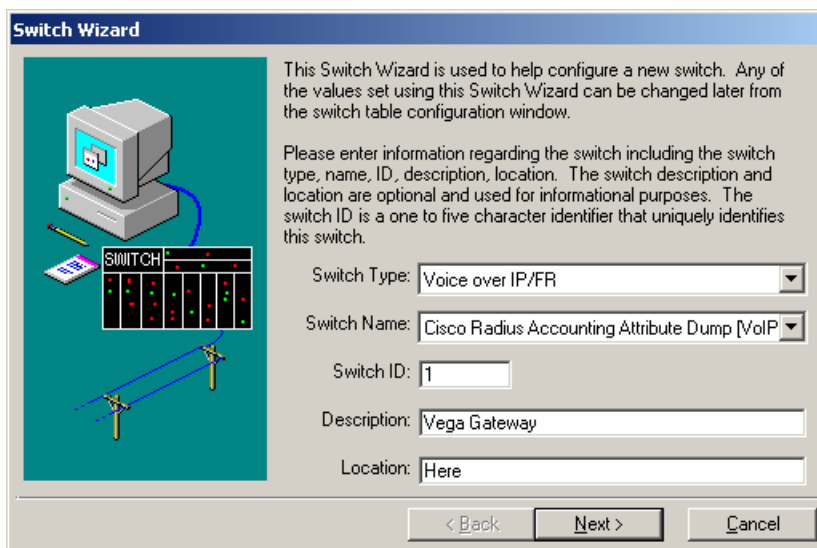Choose the appropriate currency.

In the **Tariff Update Wizard**

Select an appropriate number plan
Select an appropriate tariff update file – provided by I. S. Associates

Leave the configuration as "ignore carriers", "ignore locations" and "ignore Intl locations"
Click **Next >**, click **Finish**

In the **Switch Wizard**
Set:
    Switch Type = "Voice over IP/FR"
    Switch Name = "Cisco Radius Accounting Attribute Dump (VOIP)"
    Switch ID = 1

Complete other information for the wizard

Set Capture method = Direct file

Click **Finish**

Install TeleCount AAA Server

Follow I. S. Associates' documentation for installing; this includes downloading and installing the
Microsoft .NET Framework, Microsoft Data Access Components (MDAC) 2.7 as well as the two
files TCAAASetup.exe and msvcp60.dll

Once installed, double click the Telecount AAA Server icon on the desktop to start the
application.

From the Tools menu, select register and then enter the registration code, or demo version code.

From the Tools menu select "Install Services" (this installs the Radius Services).

In the AAA Server Properties section, set up the Switch ID to the same value that was specified in the **Switch Wizard**, e.g. 1
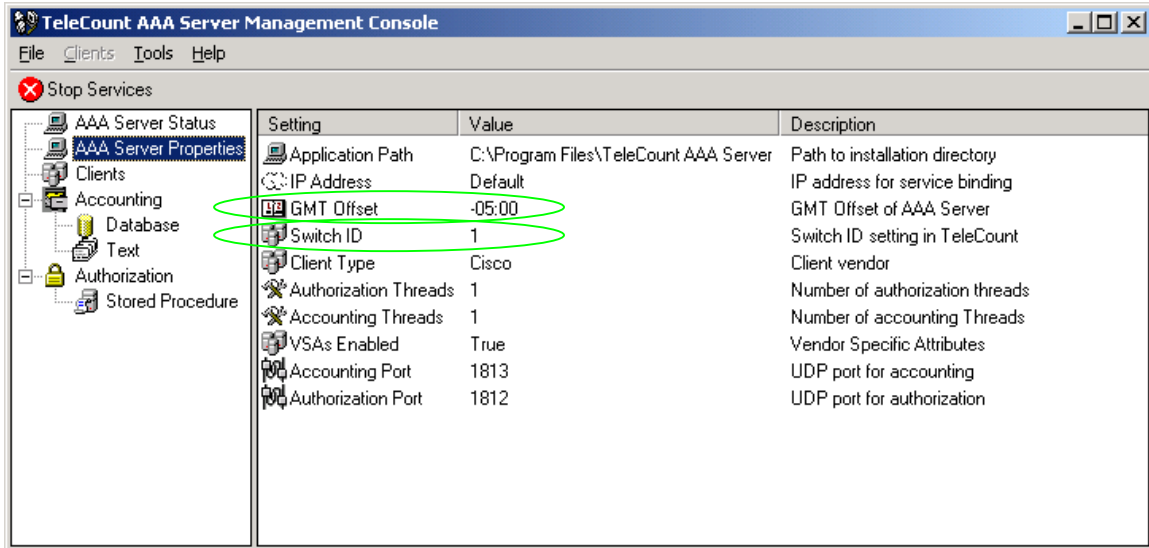
Also set up the default GMT offset.

In the "Clients" section, set up the IP address, secret and description of the Vega gateway(s) that will be supplying Radius records by right clicking in the right hand panel and selecting **Add Client**.
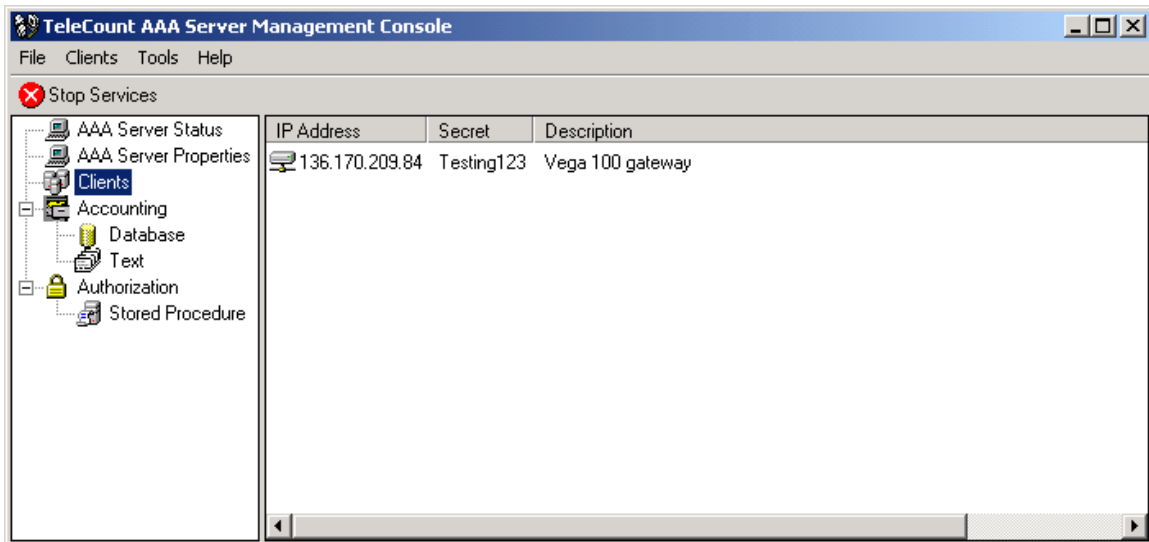
Configure all the SQL database information:

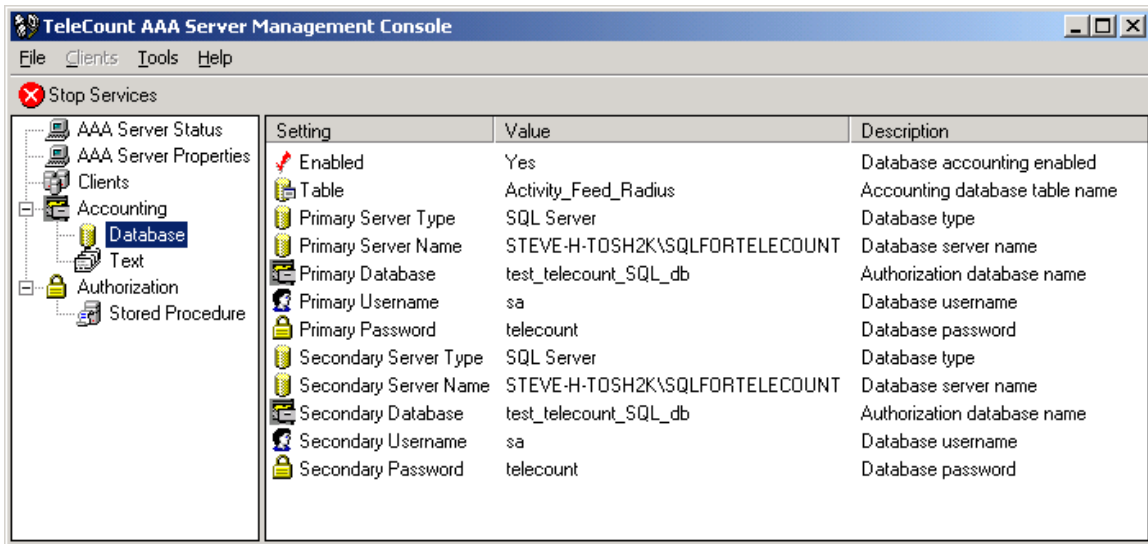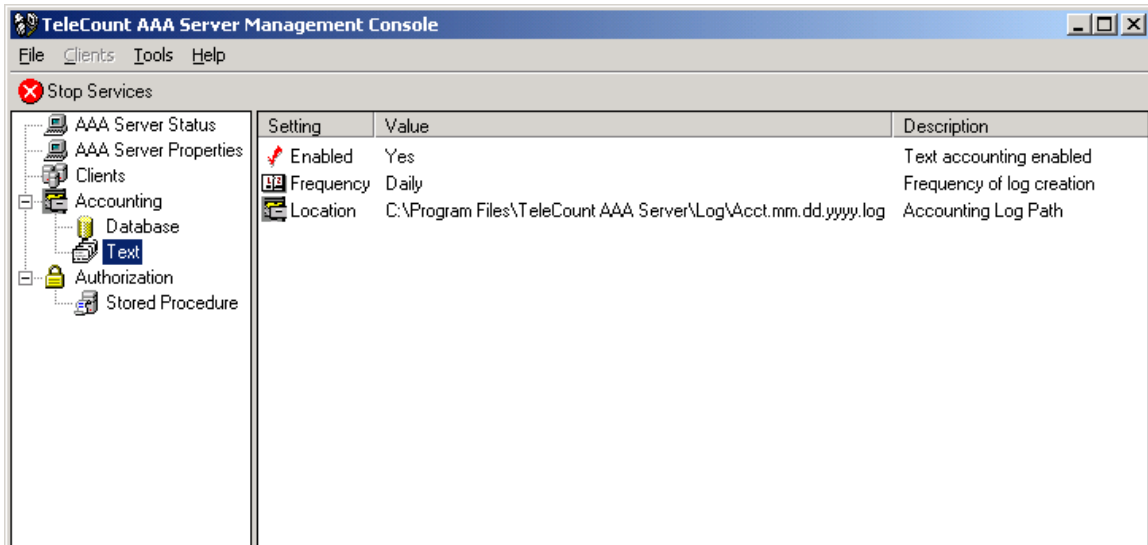| Setting	Value	Description
Enabled	Yes	Database accounting enabled
Table	Activity_Feed_Radius	Accounting database table name
Primary Server Type	SQL Server	Database type
Primary Server Name	STEVE-H-TOSH2K\SQLFORTELECOUNT	Database server name
Primary Database	test_telecount_SQL_db	Authorization database name
Primary Username	sa	Database username
Primary Password	telecount	Database password
Secondary Server Type	SQL Server	Database type
Secondary Server Name	STEVE-H-TOSH2K\SQLFORTELECOUNT	Database server name
Secondary Database	test_telecount_SQL_db	Authorization database name
Secondary Username	sa	Database username
Secondary Password	telecount	Database password

To find the Server Name, find the SQL Server Service Manager icon in the system tray (a grey computer-like icon with a green arrow). Place the cursor over this icon and it will display \\<server-name>\<instance-name>. Enter <server-name>\<instance-name> as the Server Name.

If only a single SQL database is to be used (no secondary database) then configure the secondary database details to be exactly the same as the primary database details:

Configure text logging:

Setting	Value	Description
Enabled	Yes	Text accounting enabled
Frequency	Daily	Frequency of log creation
Location	C:\Program Files\TeleCount AAA Server\Log\Acct.mm.dd.yyyy.log	Accounting Log Path

In the Authorization section set **Enabled** = NO:
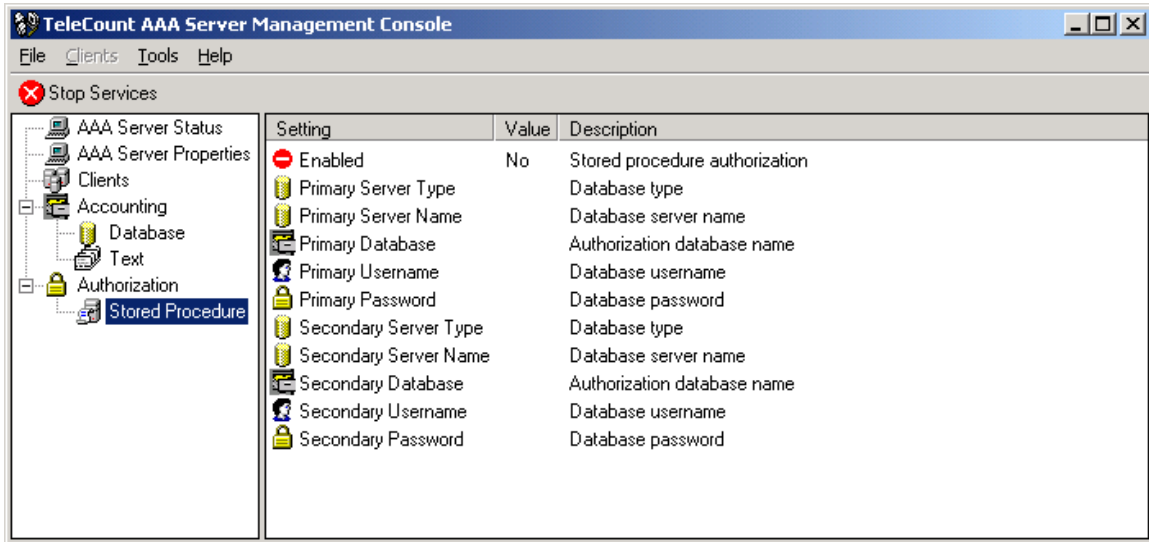
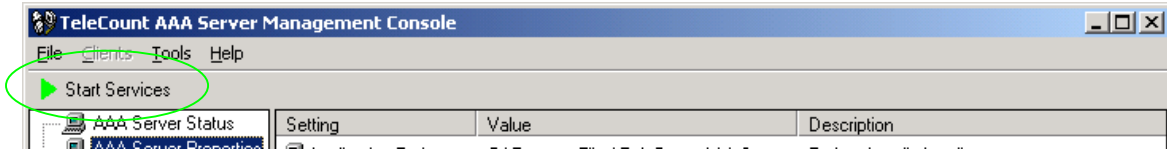If the application says "Start Services" rather than "Stop Services", click "Start Services" to start them:

Configure TeleCount Management Console

Either find the TeleCount Management Console in the system tray, or select Start>Programs>TeleCount>TeleCount Management Console
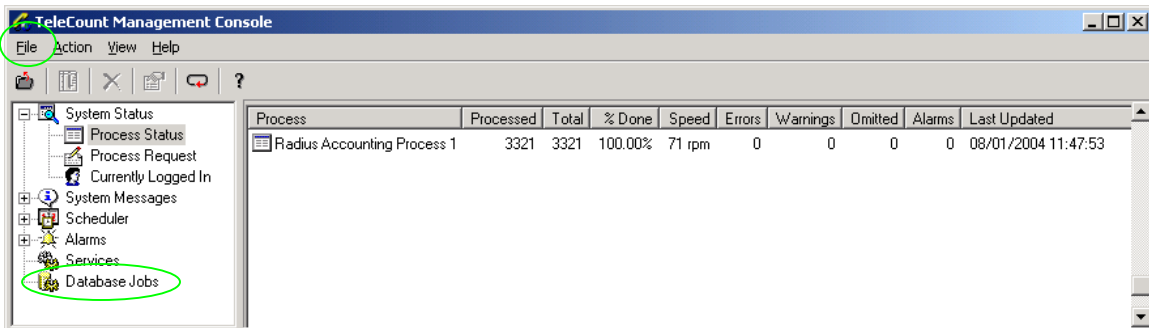
Select File>Login and use the admin / vega Operator Name / Password.

In the left panel, select "Database Jobs", then select Action>Install Job.
Select the "Process Radius Feed" option
Continue until the process "Process Radius Feed" is seen in the Database Jobs panel. If it is not running, then select it and click the green arrow in the command bar to start the job.

Configure TeleCount

If it is not already running, Start Telecount by selecting Start>Programs>TeleCount>TeleCount

Login using the admin / vega Operator Name / Password.

Select File > Billing > AAA options and then the "accounting" tab. Select Vega Gateway from the pull down list as the Primary Switch ID

Click **OK**

Vega Configuration

Radius:
With the retry timers (T1 and T2) set to their default values, the Vega gateway starts sending out repeat messages before TeleCount has had time to respond to the original messages. This produces unnecessary loading on the TeleCount system.

In order to reduce the loading on TeleCount set
- T1 Retry Timer to 3000 (from default 500) and
- T2 Retry Timer to 6000 (from default 4000)

Date and Time:
When logging billing records it is important that the Vega presents the correct date and time in the Radius records. To ensure that the Vega keeps accurate time it should be configured to collect its date and time from an NTP server at power up and update it regularly – e.g. once per day. (See the Vega Primer for details on configuring NTP).

Check that calls are correctly logged

Once some test calls have been made, in the Telecount application select "Open Activity Table":
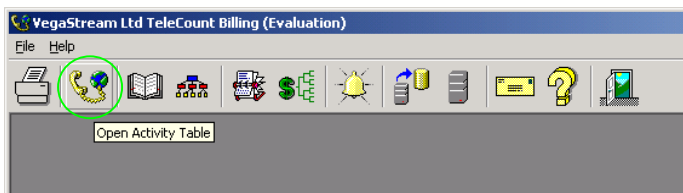
The database(s) of calls can be found by selecting "Voice over IP/FR":
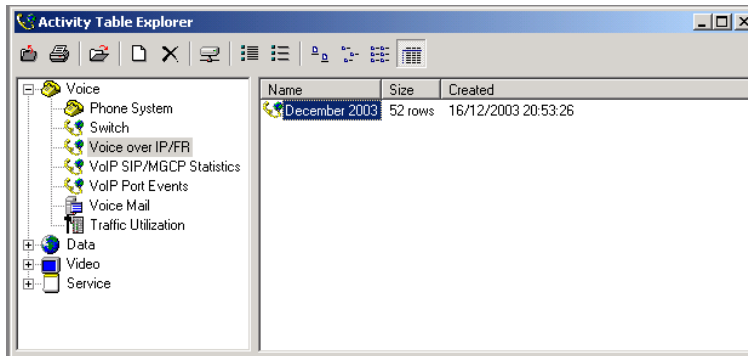
Double click an activity record database.
In the wizard that starts up, select "All matching records" and make sure that the date range fully includes the dates of the calls that have been made. Keep selecting Next > / Finish until the records are displayed

Trouble shooting

To see radius records being received and processed, look at the TeleCount Management Console's System Status > Process Status. Processed and Total Counts increase as radius records are received and processed (Accounting on / off and Start / Stop records).

If a more detailed view of the received radius records is required, start up the TeleCount AAA Server and select Tools > Launch debug. Re-start the services, and as radius records are received they will be displayed in text format in the debug window.

When a Vega is powered up, it should send a single Accounting on message and then the TeleCount AAA Server should acknowledge it and so stop the Vega re-sending the message. If the Accounting on message is being repeatedly sent, it is likely that the Telecount AAA Server is not acknowledging it, and that is likely to be because the server cannot access the SQL database. Check for typos in the database name and passwords in the AAA Server configuration.

Call-shop logging

For call-shop logging, the "Hospitality" features of the TeleCount software allow per-phone billing.

When a customer arrives to use the call-shop facilities, the operator does a "Guest Check In" against a specific phone and shows the customer to that phone. The customer then makes all the calls they need to. When they have finished the operator performs a "Guest Check Out" and prints a bill for all the calls made between check in and check out on that phone.

To configure this functionality, perform the following steps:

Create directory entries within TeleCount (the Directory ID for each of these entries will be the room numbers)
1) Open the Directory Table in TeleCount (File>Directory Management>Directory Table)
2) The Directory Table will open. Click the new record button;

   a text box will appear asking for a Directory ID.
   Set this Directory ID to be the room number / name (for example room 514 could have a directory id "514" or "Room 514"). **Click OK**
3) Click on the "Association" tab of the directory entry. In the left-pane you will see "Phone Numbers".
4) Click on "Phone Number" and in the right-pane **right-click** and choose "Add". A New Phone Number window will appear.
5) Select the "Add One Phone Number" radio button and enter the phone number into the field (5833514 for example) – This must be the same number that the Vega has been configured to provide as its caller ID. **Click OK**.
6) Select save changes

Now anytime someone makes a call from phone number 5833514, the record will be associated with room 514.

Repeat for other rooms / phone numbers.

To check people into rooms, perform the following steps:

1) Choose File>Hospitality>Guest Check In or press the F11 key on the keyboard; a check-in window will appear.
2) Enter the directory id (room number / name, e.g "514" or "Room 514") that this person will be using. **Click OK**
3) Now enter the person's name details and **Click Check In** then **Click OK**

Now any traffic associated with that room will be billed to this customer.

To check people out of rooms, perform the following steps:

1) Choose File>Hospitality>Guest Check Out or press the F12 key on the keyboard; a check-out window will appear.
2) Enter the directory id (room number / name, e.g "514" or "Room 514") that this person has used. **Click OK**

3) You will see the name information you entered upon check in (also check in and check out time details). **Click Check Out**
4) A new window will appear. Choose the activity type "Voice Over IP/FR"; check any option boxes that are applicable.
5) Click the "Print" button to print their report to hand to the customer and show them the calls they placed and charge them.

Contact details for I.S. Associates Inc

www.isassoc.com

1260 Rankin
Suite G
Troy
MI 48083
USA

Tel: +1 800 583 3440
Tel: +1 248 583 3440
Fax: +1 248 583 6221

Contact Details
Email: support@vegastream.com
Web: http://www.vegastream.com

EMEA Office
VegaStream Limited
Berkshire Court
Western Road
Bracknell
Berks RG12 1RE
UK

+44 (0) 1344 784900

USA Office
VegaStream Inc.
3701 FAU Boulevard
Suite 200
Boca Raton
FL 33431
USA

+1 561 995 2300