How to get current roaming status and notification on network change

The code example demonstrates how to find out the current SIM status (roaming or in home network) and get notification on every network change. The application must be Symbian Signed, since it requires the `ReadDeviceData` capability. The programmer must use an active object because the calls are asynchronous.

Header Required:

```
#include<etel3rdparty.h>
```

Library Required:

```
LIBRARY  etel3rdparty.lib
```

NetRegister.h

```
#ifndef CNETREGISTER_H__
#define CNETREGISTER_H__

#include <Etel3rdParty.h> // link against Etel3rdParty.lib

//Enumeration to get more control on initial registration status or network changed notification
enum TNetStatus
 {
 EOperationNone,
 ENetworkInitialRegInfo,
 ENetworkChangeRegInfo
 };

class CNetRegister : public CActive
 {

public:

 // static constructor + destructor
 static CNetRegister* NewL();
 ~CNetRegister();

public:

 void IssueRequest();
 void GetNetworkRegistration();

protected: // from CActive
 virtual void DoCancel();
 virtual void RunL();

private:    // private constructors

 CNetRegister();
 void ConstructL();

private:    // data
 CTelephony* iTelephony;
 CTelephony::TNetworkRegistrationV1     iNetworkRegistrationV1;
 CTelephony::TNetworkRegistrationV1Pckg iNetworkRegistrationV1Pckg;
 TNetStatus iNetStatus;
 };

#endif CNETREGISTER_H__
```

NetRegister.cpp

```
#include "NetRegister.h"

CNetRegister* CNetRegister::NewL()
{
 CNetRegister* self = new (ELeave) CNetRegister();
 CleanupStack::PushL(self);
 self->ConstructL();
 CleanupStack::Pop(); // self
 return self;
}


CNetRegister::CNetRegister(): CActive(EPriorityHigh),iNetworkRegistrationV1Pckg(iNetworkRegistrationV1)
{

}
void CNetRegister::ConstructL()
{
 iTelephony = CTelephony::NewL();
 CActiveScheduler::Add(this);
 GetNetworkRegistration();
}


CNetRegister::~CNetRegister()
{
 Cancel();
 delete iTelephony;
}
```


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```
void CNetRegister::RunL()
{
 if( iStatus == KErrNone )
 {
  switch(iNetStatus)
  {
                //Network registration changed notification.
  case ENetworkChangeRegInfo:
  {
   CTelephony::TRegistrationStatus regStatus = iNetworkRegistrationV1.iRegStatus;
   if(regStatus==CTelephony::ERegisteredRoaming)
   {
    //Network changed to Roaming
   }
   else if(regStatus==CTelephony::ERegisteredOnHomeNetwork)
   {
    //Network changed to Home network
   }
  }
  break;
                //Initial status of network registration. Do first time network status task like saving any network data etc here...
  case ENetworkInitialRegInfo:
  {
   CTelephony::TRegistrationStatus regStatus = iNetworkRegistrationV1.iRegStatus;
   if(regStatus==CTelephony::ERegisteredRoaming)
   {
    //Initially in Roaming
   }
   else if(regStatus==CTelephony::ERegisteredOnHomeNetwork)
   {
    //Initially in Home network
   }
  }
  break;
  default:
   break;
  }

 }
 else
 {
  // Handle errors
 }
 IssueRequest();
}


void CNetRegister::DoCancel()
{
 iTelephony->CancelAsync(CTelephony::ENetworkRegistrationStatusChangeCancel);
 iTelephony->CancelAsync(CTelephony::EGetNetworkRegistrationStatusCancel);
}


void CNetRegister::IssueRequest()
{
 iNetStatus = ENetworkChangeRegInfo;
 iTelephony->NotifyChange( iStatus,
   CTelephony::ENetworkRegistrationStatusChange,
   iNetworkRegistrationV1Pckg);
 SetActive();
}

void CNetRegister::GetNetworkRegistration()
{
 iNetStatus = ENetworkInitialRegInfo;
 iTelephony->GetNetworkRegistrationStatus(iStatus, iNetworkRegistrationV1Pckg);
 SetActive();
}
```

Related Links

- Usage of CTelephony

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