| Computer Architecture & Systems/ |
| Information & Communication Systems |
| **Research Assignment** |
| *Assignment Brief – **Continuation 01*** |
| **Assignment Weighting: 30%** |

Within the EPA organisation at the moment, Regional Officers collect water and other samples which they then ship to one of four provincial labs for chemical or other physical analysis. A copy of that analysis is sent back to the Regional Officer as well as on to Head Office. Within the Head Office the results are passed to the SAU for comparison to existing values and recording for future use; *i.e. statistical* use and analysis.

The data is also analysed for anomalies or discrepancies that are considered significant. In the event of analysis results being yielding significant results that need examination at a higher administrative level then the results will not only be sent back to the Regional officer and provincial lab, but they will also be sent to the relevant EPA section head.

If necessary they will then be sent by the section head to the Department of the Environment where they will be seen by the Minister and appropriate action at that level taken, or ordered to be taken by the EPA.

In the Office Splitting Project a replacement will have to be found for the older method where paper reports were walked down the corridor by an assistant and left in the relevant office, or driven to the department and again left in the correct office.

One of the key solutions that you will have to outline is a communications method that will replace this paper mechanism, as well as be as secure as the office to office element of the previous manual system. If you choose an electronic mechanism for this, encryption must be considered.

Also required is a replacement for the paper filing room (aka 'Library') where all reports, analyses, publications, National and European directives have been stored until now.

In the past copies of all such paperwork was retained to be examined by anyone in

head office as required. These documents would also have been copied and sent to outlying personnel as required. Since it will no be feasible longer for staff to walk down the corridor to view this, an electronic version of this will have to be produced. Remote access to this electronic library must also be considered.

A few notes should be borne in mind on this. Only new materials produced will be covered. A separate project (not directly your concern) will deal with past materials. Further, though, documents being transmitted electronically must also be encrypted to avoid accidental or deliberate interception.

As a general rule (and hopefully this is coming clear) you should consider all office functions that are related to the *transfer* of information and look at electronic replacements for these. You need not concern yourself with any possible existing electronic methods for this already in place as it is likely that most of these will be changed as a result of the office split anyway.

You will be required to diagram the information flows, from 'lowly' field offices to exalted ministers and all in between, as part of the assignment; so reasonable attention should be paid to what information flows to or from any person or persons in the organisation. (The Computer Programming section of Flow Charts may help).

For each of the broad sections listed thus far you need to provide a suggested solution. These sections are:
1. Report Transmission
2. General Library
3. Secure data transport (messages & documents)

More to follow...