



UNITED NATIONS
DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION

Expert Group on International Merchandise Trade Statistics
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Availability of international merchandise trade statistics: UN Comtrade from 1997 to 2006

Comtrade Data Availability

1. By 23 November of 2007, there were 132 countries or areas for the most recent year in UN COMTRADE which is 4 more than at the end of 2006. In addition, the total number of country periods entered for the most recent 2 and 3 years were the highest ever at 285 and 445, respectively. The complete series of 1999 to 2007 shows a steady increase, except for 2005, which was due to a change in methodology, when the actual numbers from the new processing system were taken, which tend to give a lower number than those from earlier years, when the numbers were counted on reception of data.

Table 1
Number of country periods available
as of 31 December of each year

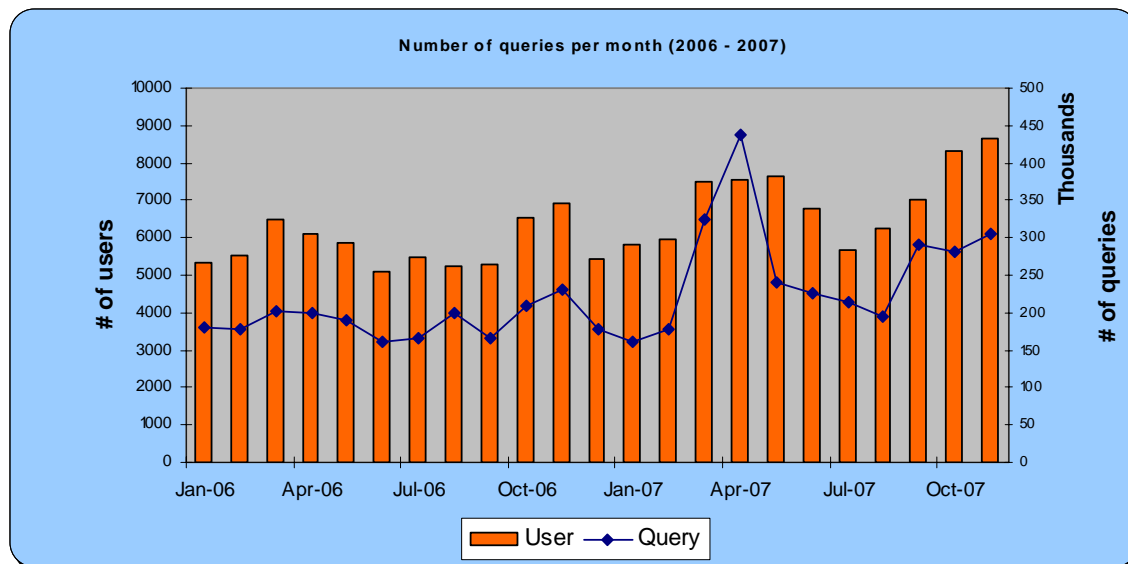
Period	2007*	2006	2005	2004	2003	2002	2001	2000	1999
Most recent <u>year</u> of data	132	128	122	127	112	105	109	100	78
Most recent <u>2 years</u> of data	285	278	270	274	246	237	233	211	181
Most recent <u>3 years</u> of data	445	440	426	429	395	372	357	334	291

* As of 23 November 2007

Annex 1 shows the availability of UN Comtrade for the years 1997 to 2006 by country and Commodity Classification (including its detail).

Comtrade Usage

2. In our last report on UN Comtrade usage statistics of March 2005, the number of users per month was about 4,500 and the number of queries around 150,000 per month. Of these 4,500 different users about 90% are guest users which use the database for free.



As can be seen in the inserted graph, the number of users kept increasing from about 5,000 per month in 2006 to over 7,000 in November 2007. The corresponding number of queries went up from 200,000 at the beginning of 2006 to around 300,000 by the end of 2007.

Comtrade Data Transfer

3. For data extraction and transfer UN Comtrade offers currently two publicly available ways for data download:
 - a) **Direct download**; in this case the data query is submitted directly to the server and the user waits while it is being executed. Upon completion the user can click download which will transfer the data directly to his or her PC. The download limit for such transfer is set at 150,000 records.
 - b) **Batch download**; in this case the data query is sent to the server (as a so-called batch job) and will be executed at a convenient time for the server. Meanwhile the user can proceed with other work. The user will be warned by e-mail and via the Batch monitor facility on UN Comtrade when the batch job has finished. By clicking on the provided URL the data transfer process is initiated (via http protocol). The download limit in this case is set at 20,000,000 records.
4. Batch jobs are recommended for data queries which are CPU time intensive (involving calculations for country groups and/or commodity groups) or involve very large data sets.

Comtrade Data Transfer via Web Services

5. A more advanced way of transferring large amounts of UN Comtrade data is via the so-called Comtrade Web Services. For data transfer between UNSD and the international partner agencies, these web services could eventually become the standard. As indicated in the picture of Annex 2, we are currently testing three ways of data transfer via web services:

- a) **By entering a URL in the browser address box.** As shown in the picture of Annex 2, Organization #1 has organized its data transfer by connecting to the internet and obtaining trade data using the internet browser. The data are saved as an XML-file.
- b) **By using the ComtradeTools application.** Organization #2 uses the application “ComtradeTools” (developed by UNSD) to transfer the trade data and then to receive them into text files.
- c) **By automated data synchronization.** Finally, Annex 2 also shows that Organization #3 has set up an automatic one-way synchronization for the data transfer where the local trade database will always be aligned with the UN Comtrade Internet database.

6. Annex 3 shows the various ways in which we are currently trying to setup data transfer for the different members of the Task Force using web services. Almost all of the organizations are using the newly developed ComtradeTools application for the data transfer. The automated data synchronization is still an option for the future.

7. The broader context of data transfer is the SDMX project. The mentioned data transfer via web services makes use of the architecture developed in the SDMX project. Specifically for the transfer of trade data, UNSD has developed a prototype called “Transfer of Cross-sectional data”. A technical summary of the “Strategies for Trade Data Dissemination” project is given in Annex 4.

Annex 1
Countries or areas for which more than one year was added to Comtrade in 2004

State or Custom	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	148	149	155	170	168	165	162	159	149	131
Afghanistan										
Albania	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-10	H2-9	H2-11	H2-8
Algeria	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
American Samoa										
Andorra	H1-6	H1-6	H1-8	H1-11	H1-11	H2-11	H2-11	H2-11		
Angola										
Anguilla				H1-8	H1-8	H2-8	H2-8	H2-8		
Antigua & Barbuda			H1-6	H1-7					H1-8	
Argentina	H1-9	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-10	H2-8	H2-8
Armenia	H1-6	H1-6	H1-6	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8
Aruba	R.2	R.2	R.2	R.2-8	R.2-8	H2-8	H2-8	H2-8	H2-8	H2-8
Australia	H1-8	H1-8	H1-8	H1-8	H1-10	H2-8	H2-10	H2-10	H2-10	H2-10
Austria	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-5/8	H2-8
Azerbaijan	H1-6	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-6
Bahamas	H1-8	H1-8	H1-8	H1-8	H1-8					
Bahrain				H0-8	H0-8	H2-8	H2-8	H2-8	H2-8	H2-8
Bangladesh	H1-7	H1-7	H1-7	H0-7	H0-7	H1-7	H2-8	H2-8		
Barbados	H1-7	H1-7	H1-7	H1-7	H1-8	H1-7	H1-8	H1-8	H2-10	H2-10
Belarus		H1-9	H1-9	H1-9	H1-9	H2-10	H2-8	H2-10	H2-10	H2-10
Belgium	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Belize	H1-7	H1-7	H1-7	H1-7	H1-8	H1-10	H1-8	H1-8	H2-8	H2-10
Benin	R.2 (M)	H1-6	H1-6	H1-6	H1-6	H2-6	H2-10	H2-10	H2-10	
Bermuda	H1-6									
Bhutan		H1-8	H1-8							
Bolivia	H1-8	H1-8	H1-8	H1-8	H1-10	H2-8	H2-8	H2-10	H2-10	H2-10
Bosnia & Herzegovina							H2-6	H2-8	H2-6	H2-6
Botswana				H1-6	H1-6	H1-6	H1-8			
Brazil	H1-8	H1-8	H1-6	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
British Virgin Isl.										
Brunei Darussalam	H1-9	H1-9			H1-9	H1-9	H1-8			H1-9
Bulgaria	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6	H2-6	H2-6	H2-5/6	H2-6
Burkina Faso	H1-8	H1-10	H1-10	H1-10	H1-6	H2-6	H2-10	H2-10		
Burundi	H1-6	H1-6	H1-6	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	
Cambodia				H1-8	H1-8	H1-8	H1-8	H2-8		
Cameroon	H1-6	H1-6	H1-6	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8
Canada	H1-6	H1-6	H1-6	H1-8	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10

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Cape Verde	H1-10	H1-6	H1-10	H1-10	H1-10	H1-10	H1-10	H1-10	H1-10	H1-10
Cayman Islands										
Central African Rep	H1-10	H1-10	H1-10	H1-10	H1-10	H1-10	H1-10		H1-10	
Chad										
Chile	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
China	H1-6	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
China, Hong Kong SAR	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
China, Macao SAR	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8		H2-8
Colombia	H1-8	H1-8	H1-8	H1-8	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10
Comoros	H1-8	H1-8	H1-8	H1-8						
Congo										
Cook Islands				H1-7	H1-8	H1-8	H2-8	H2-8	H2-8	
Costa Rica	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-10	H2-10	H2-8
Cote d'Ivoire	H1-8	H1-8	H1-8	H1-8	H1-11	H1-8	H1-8	H2-11	H2-11	H2-11
Croatia	H1-9	H1-9	H1-9	H1-9	H1-9	H2-10	H2-10	H2-10	H2-10	H2-10
Cuba			H1-8	H1-8	H1-8	H1-8	H2-8	H2-8		
Cyprus	H1-8	H1-8	H1-8	H1-10	H1-10	H2-10	H2-10	H2-8	H2-8	H2-8
Czech Republic	H1-6	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-6/8
Dem.Rp.Congo										
Denmark	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6	H2-6	H2-8	H2-8	H2-8
Djibouti										
Dominica	H1-7		H1-6	H1-6	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8
Dominican Republic	H0-8	H0-6	H0-6	H0-6	H1-8					
Ecuador	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-10	H2-10	H2-10
Egypt	H1-10	H1-10	H1-10	H1-6	H1-10	H1-10	H1-10	H1-10	H2-10	H0-10
El Salvador	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8
Equatorial Guinea										
Eritrea				R.3-4	R.3-4	R.3-4	H1-8			
Estonia	H1-6	H1-6	H1-6	H1-8	H1-6	H2-6	H2-6	H2-6	H2-6	H2-6
Ethiopia	H1-6	H1-6	H1-6	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8
Faeroe Islands	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6	H2-6	H2-6	H2-6	H2-6
Fiji				H1-8	R.3-6	H2-8	H2-8	H2-8	H2-8	H2-8
Finland	H1-8	H1-8	H1-8	H1-8	H1-8	H2-10	H2-8	H2-8	H2-8	H2-8
France	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
French Polynesia	H1-6	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6	H2-6	H2-6	H2-6
Gabon	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8
Gambia	H1-6	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8
Georgia	H1-6	H1-6	H1-6	H1-6	H1-6	H1-9	H1-9	H1-9	H1-9	H2-6
Germany	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6	H2-6	H2-6	H2-6	H2-6
Ghana	H1-6	H1-6	H1-6	H1-10	H1-10	H1-10	H1-10	H1-10	H2-10	H2-10
Gibraltar										
Greece	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Greenland	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6				
Grenada	H1-8	H1-7	H1-7	H1-6	H1-7	H1-7	H1-8	H1-7	H1-8	

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Guatemala	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8
Guinea	H1-8	H1-6	H1-6	H1-6	H1-6	H2-10				
Guinea Bissau										
Guyana	H1-7	H1-7	H1-10	H1-7	H1-7	H1-8	H1-10	H1-10	H2-10	H2-10
Haiti	H1-4									
Honduras	H1-8	H1-8	H1-8	H1-10	H1-10	H1-10	H2-10	H2-10	H2-10	H2-10
Hungary	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6	H2-5/6	H2-5/6	H2-5/6	H2-5/6
Iceland	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
India	H1-8	H1-8	H1-6	H1-8	H1-6	H1-6	H2-8	H2-6	H2-6	H2-8
Indonesia	H1-9	H1-9	H1-9	H1-9	H1-9	H1-9	H1-9	H1-9	H1-9	H1-9
Iran, Islamic Rep.	H1-6	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6	H2-6	H2-6	
Iraq										
Ireland	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Israel	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-7/8
Italy	H1-6	H1-6	H1-8	H1-8	H1-10	H2-10	H2-6	H2-6	H2-6	H2-6
Jamaica	H1-7	H1-7	H1-8	H1-8	H1-8	H1-10	H1-8	H2-10	H2-10	H2-8
Japan	H1-9	H1-9	H1-9	H1-9	H1-9	H2-9	H2-9	H2-9	H2-9	H2-9
Jordan	H1-8	H1-8	H1-8	H1-6	H1-9	H2-9	H2-9	H2-9	H2-9	H2-9
Kazakhstan	H1-4	H1-4	H1-4	H1-9	H1-9	H1-9	H1-9	H2-10	H2-10	H2-6
Kenya	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Kiribati	H1-8	H1-8	H1-8						H2-8	
Korea	H1-6	H1-8	H1-8	H1-8	H1-6	H2-6	H2-6	H2-10	H2-6	H2-6
Kuwait	R.3	R.3	R.3-6	H1-8	H1-8					
Kyrgyzstan	R.3	H1-6	R.3-5	H1-6	H1-6	H1-6	H2-6	H2-6	H2-10	H2-10
Lao Peoples D. R.										
Latvia	H1-6	H1-6	H1-6	H1-6	H1-6	H2-6	H2-6	H2-8	H2-8	H2-6/8
Lebanon	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-6		
Lesotho				H1-6	H1-6	H1-6				
Liberia										
Libyan Arab Jamah	R.2-6	R.2-6						R.2-6	R.2-6	
Lithuania	H1-8	H1-9	H1-9	H1-9	H1-9	H2-9	H2-9	H2-9	H2-9	H2-6/8
Luxembourg			H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-6/8
Madagascar	H1-8	H1-8	H1-8	H1-6	H1-6	H2-6	H2-8	H2-8	H2-8	H2-8
Malawi	H1-8	H1-8	H1-8	H1-8	H1-8	H1-10	H2-8	H2-8	H2-10	H2-8
Malaysia	H1-9	H1-9	H1-6	H1-6	H1-9	H2-9	H2-9	H2-9	H2-9	H2-9
Maldives	H1-8	H1-8	H1-6	H1-8	H1-10	H1-10	H2-10	H2-10	H2-10	H2-10
Mali	H1-6	H1-6	H1-10	H1-10	H1-10	H1-10	H1-10	H2-10		
Malta	H1-10	H1-10	H1-10	H1-10	H1-10	H2-10	H2-10	H2-8	H2-8	H2-8
Mauritania				H1-10	H1-10	H1-10	H1-10	H1-10	H1-10	H1-10
Mauritius	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Mayotte				H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Mexico	H1-8	H1-6	H1-6	H1-6	H1-8	H2-8	H2-6	H2-6	H2-6	H2-6/8
Mongolia	H1-8	H1-8	H1-8	H1-5	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Montserrat			H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8

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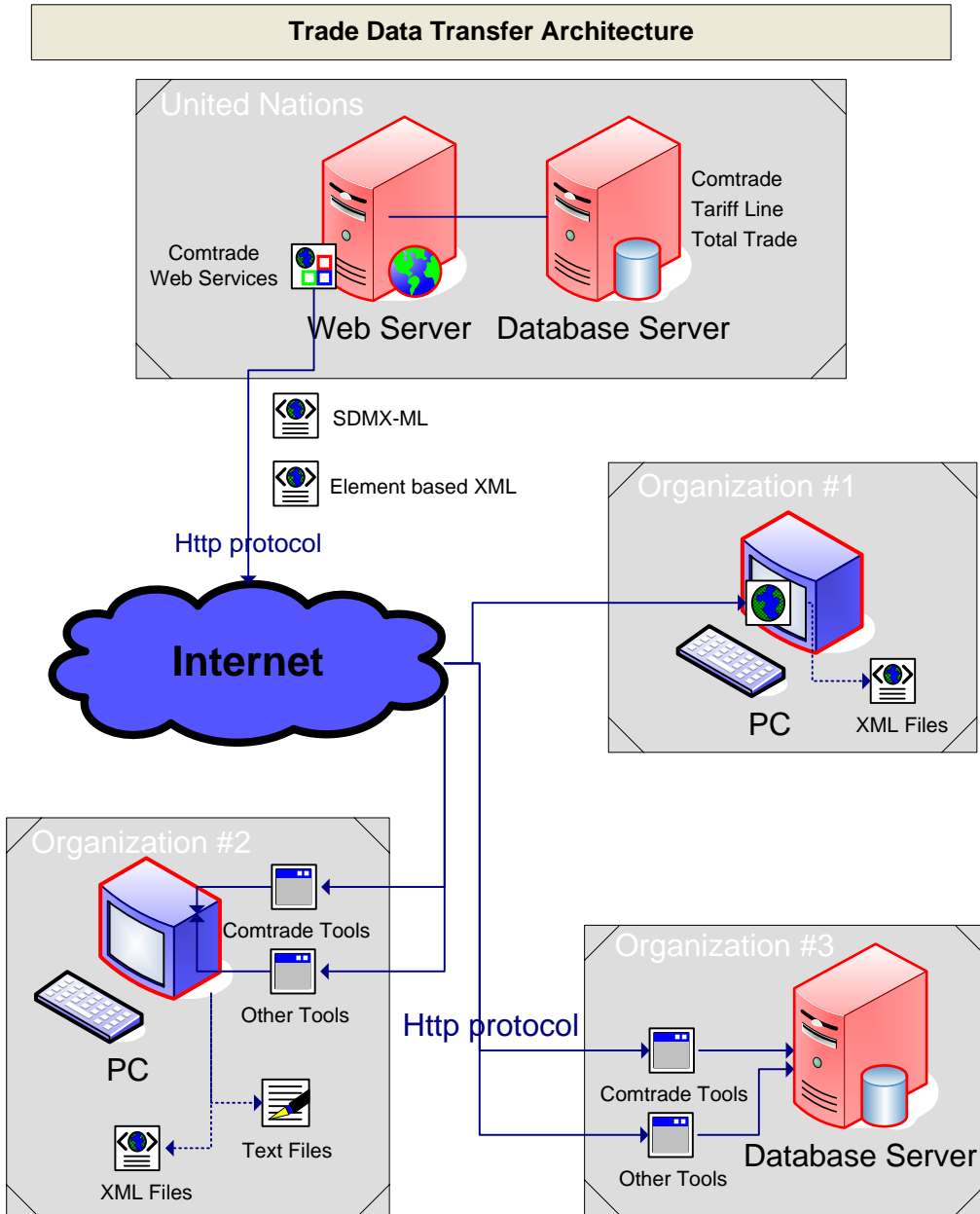
Morocco	H1-6	H1-8	H1-8	H1-8	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10
Mozambique	H1-4		H1-4	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8
Myanmar										
Namibia				H1-6	H1-6	H2-6	H2-6	H2-8	H2-6	H2-6
Nepal	R.2	H1-6	H1-8	H1-6			H2-8			
Neth. Antilles		R.2-8								
Netherlands	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
New Caledonia			H1-8	H1-8	H1-8	H1-8	H2-7	H2-7	H2	H2-8
New Zealand	H1-8	H1-8	H1-8	H1-10	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10
Nicaragua	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-10	H2-10	H2-8	H2-8
Niger	H1-10	H1-10		H1-6	H1-10	H1-10	H1-10	H2-10	H2-10	
Nigeria	H1-8	H1-8	H1-10	H1-10	H1-10	H1-10	H1-10			
Norway	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Oman	H1-6	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-6/8
Pakistan	R.3	R.3	R.3	R.3	R.3-8	H2-8	H2-10	H2-8	H2-8	H2-8
Panama	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-10	H2-8	H2-8	H2-8
Papua New Guinea		H1-10		H1-10	H1-10	H2-10	H2-10			
Paraguay	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-10	H2-12	H2-12
Peru	H1-8	H1-8	H1-8	H1-10	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10
Philippines	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8
Poland	H1-6	H1-6	H1-6	H1-6	H1-9	H2-9	H2-9	H2-8	H2-8	H2-8
Portugal	H1-6	H1-6	H1-8	H1-8	H1-6	H2-6	H2-6	H2-6	H2-8	H2-6/8
Qatar	R.3	R.3	R.3	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8
Rep. Moldova	H1-8	H1-8	H1-6	H1-6	H1-10	H1-10	H1-9	H2-9	H2-9	H2-9
Romania	H1-6	H1-6	H1-6	H1-6	H1-8	H2-8	H2-6	H2-6	H2-6	H2-6
Russian Federation	H1-6	H1-6	H1-6	H1-5/8	H1-5/8	H2-5/8	H2-5/8	H2-5/8	H2-5/8	H2-5/8
Rwanda	H1-	H1-	H1-8		H1-8	H1-8	H1-8			
Saint Kitts-Nev	H1-7		H1-7	H1-7	H1-7	H1-7	H1-7	H1-7	H1-7	H1-8
Saint Lucia	H1-8	H1-8	H1-7	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	
Saint Vincent,G	H1-8	H1-7	H1-6	H1-6	H1-8	H1-8	H1-8	H1-8	H1-7	H2-8
Samoa					H1-8	H2-8	H2-8	H2-8	H2-8	
Sao Tome & Prin.			H1-10	H1-10	H1-10	H1-10	H1-8	H1-10	H1-10	H1-10
Saudi Arabia		H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-6	H2-6	H2-6/8
Senegal	H1-10	H1-10	H1-10	H1-10	H1-10	H1-10	H2-10	H2-10	H2-10	H2-11
Serbia								H2-6	H2-6	H2-6
Serbia & Montenegro				H1-6	H1-6	H1-6				
Seychelles					H1-8	H1-8	H1-8	H1-8	H1-8	H1-8
Sierra Leone						H1-8				
Singapore	H1-8	H1-8	H1-6	H1-6	H1-6	H2-6	H2-6	H2-6	H2-6	H2-6
Slovakia	H1-6	H1-6	H1-6	H1-6	H1-6	H2-8	H2-8	H2-8	H2-8	
Slovenia	H1-6	H1-6	H1-8	H1-8	H1-6	H2-6	H2-6	H2-6	H2-8	H2-6
Solomon Islands										
South Africa	H1-8	H1-8	H1-6	H1-6	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Spain	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8

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Sri Lanka			H1-8		H1-8	H2-8	H2-6	H2-8	H2-8	
St. Pierre Miquelon										
Sudan	H1-8	H1-8	H1-10	H1-8	H1-8	H1-10	H1-8	H1-8	H1-8	H1-8
Suriname	R.3-5	R.3-6	H1-8	H1-8	H1-8	H2-7	H2-7	H2-7	H2-7	
Swaziland				H1-6	H1-6	H1-6	H1-6	H1-6	H1-6	
Sweden	H1-6	H1-6	H1-8	H1-8	H1-8	H2-8	H2-5/8	H2-8	H2-8	H2-8
Switzerland	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Syrian Arab Rep.	R.2	R.2	R.2	R.3-9	H1-8	H1-8	H1-6	H1-8	H2-8	H2-6/8
Taiwan	H1-8	H1-8	H1-8	H1-8	H1-6	H1-8	H1-6	H2-6	H2-6	H2-6
Tajikistan				H1-4						
TFYR Macedonia	H1-10	H1-10	H1-10	H1-10	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10
Thailand	H1-10	H1-10	H1-10	H1-10	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10
Timor-Leste								H2-8	H2-8	
Togo	H1-9	H1-10	H1-9	H1-6	H1-10	H1-6	H1-10	H2-10	H2-10	
Tonga				H1-8						
Trinidad & Tobago	H1-7	H1-7	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8
Tunisia	H1-8	H1-8	H1-8	H1-8	H1-10	H2-10	H2-10	H2-10	H2-10	
Turkey	H1-8	H1-8	H1-8	H1-12	H1-8	H2-10	H2-12	H2-12	H2-12	H2-12
Turkmenistan	H1-4	H1-4	H1-6	H1-6						
Turks & Caicos			H1-10	H1-10	H1-10	H1-10	H1-10	H1-10	H2-4	H2-4
Tuvalu	(M) H1-8	(M) H1- 8	(M) H1-8							
Uganda	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-6	H2-8	H2-8	H2-8
Ukraine	H1-6	H1-6	H1-6	H1-6	H1-6	H1-6	H1-6	H1-3/6	H1-6	H1-6
UAE			H1-4	H1-4	H1-4	H1-4	H1-4	H1-4	H2-6	
United Kingdom	H1-8	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Tanzania	H1-8	H1-8	H1-8	H1-6	H1-8	H1-8	H1-8	H1-8	H2-8	H2-8
United States	H1-10	H1-10	H1-10	H1-10	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10
Uruguay	H1-8	H1-8	H1-8	H1-8	H1-10	H2-10	H2-10	H2-10	H2-10	H2-10
Uzbekistan										
Vanuatu				H1-4						
Venezuela	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-8	H1-10	H1-10	H2-6/8/10
Vietnam	R.3	R.3	R.3	R.3-5	H1-6	H1-6	H1-6	H2-6	H2-6	
Wallis and Futuna				(M)H0- 10	(M)H0- 10	(M)H0- 10	(M)H0- 11	(M)H0- 11	(M)H0- 11	(M)H0- 11
Yemen	R.2	R.2-5	R.2-5	R.2-5	R.3-5	R.3-5	R.3-5	H1-8	H1-8	H2-8
Yugoslavia	H1-6	H1-6	H1-6	H1-6						
Zambia	H1-6	H1-6	H1-6	H1-8	H1-8	H2-8	H2-8	H2-8	H2-8	H2-8
Zimbabwe	R.3		R.3	H1-8	H1-8	H1-8		H2-8	H2-8	

Annex 2

Three ways of using web services for UN Comtrade data transfer



Annex 3

Testing web services for UN Comtrade data transfer by partner organization

Organization	Progress
ECLAC	ECLAC is developing a flash application internally. This application obtains the data via web services from UNSD. This is an example of data transfer used directly in an application and not stored in a database.
FAO	FAO is integrating Comtrade data in its FAOSTAT2 project. UNSD has sent a complete copy of the UN Comtrade database. Data synchronization will be attempted with help of the ComtradeTools program.
ITC	ITC is interested in Tariff Line Data which are stored as tables in the new UNSD-OECD data processing system. ITC is using the ComtradeTools program for download of those data.
OECD	OECD is UNSD's partner in the development of the UNSD-OECD data processing system. For the transfer of processed data OECD and UNSD are testing the ComtradeTools application with synchronization features.
UNCTAD	UNCTAD (in cooperation with the World Bank) is interested in Tariff Line Data which are stored as tables in the new UNSD-OECD data processing system. UNCTAD will use the ComtradeTools program for download of those data.
UNIDO	UNIDO is migrating from mainframe to client-server system. UNIDO will test the ComtradeTools program to replace the mainframe download.
World Bank	Comtrade data are used in the WITS application. The World Bank is switching from using mainframe Comtrade data to Internet Comtrade data. UNSD has sent a complete copy of the UN Comtrade database. Data synchronization will be attempted with help of the ComtradeTools program.
WTO	WTO needs to obtain Comtrade data for PC_Comstudy. WTO is testing the ComtradeTools program for the data transfer.

Annex 4

PROJECT SUMMARY of strategies for Trade Data Dissemination

1. The strategies for Trade Data Dissemination are:
 - i. Using a **standard data format**. SDMX (<http://www.sdmx.org>) version 1.0 has been released and it is being used as one of the format for trade data dissemination;
 - ii. Using **Internet** as a low cost transfer medium and for its standards, such as http protocol, web services, etc;
 - iii. **Platform independent** means that client can use any operating systems, any database, and program languages to obtain trade data;
 - iv. **Be able** to transfer a **very large data**. The REST Web Service and internet stream compression play important roles here;
 - v. The possibility for **unattended one-way synchronization**.

2. The implementation of the strategies:
 - i. **Architecture**: “Pull” architecture due to the flexibility and tight security (such as UN Server can’t initiate http request to any web sites). The client has to initiate a request.
 - ii. **Synchronization Approach**: By comparing the data availability between two sites for creating the list of new/updated datasets.
 - iii. **Data Format**: SDMX-ML version 1.0 is currently being used.
 - iv. **Medium and Protocol**: Internet (with http protocol) via Web Services.
 - v. **Compression**: The SDMX-ML is compressed during the data transfer. It reduces 70-80% of the bandwidth usage and the download time.
 - vi. **Encryption**: None at the moment. If it is necessary, the https will be implemented instead of http.
 - vii. **Security**: Based on IP Address and Access Control List (to use Web Service).