

# APPENDIX B: METHODOLOGY

## INTERNATIONAL INTELLECTUAL PROPERTY ALLIANCE (IIPA) 2011 SPECIAL 301 REPORT ON COPYRIGHT PROTECTION AND ENFORCEMENT

### BUSINESS SOFTWARE

The Business Software Alliance (BSA)'s calculation method compares two sets of data – the number of new software units installed (based on hardware shipments and software load), and the legal supply of new software units. The amount of pirated software is equal to the difference between paid-for or legitimate packaged software units and the total software base. The piracy rate is the percentage of the total packaged software base that is pirated.

The total amount of software, legitimate and pirated, installed during the year (the total software base) is obtained by multiplying the number of new hardware units and the number of existing hardware units getting new software by their respective software loads.

Hardware shipments are determined from tracking data on 60+ countries that IDC collects as a matter of routine. For the additional 30+ countries and markets, the data was either collected in-country or modeled regionally out of our rest-of-region estimates. The basic tracking data is generated from suppliers, including local suppliers. Similarly, the hardware-installed base is based on this tracking data. The software load is the amount of software units installed and/or pre-installed (OEM) on the computers during the year. To obtain the number of software units for each type of hardware platform, including those running software on Windows and those running software on non-Windows operating systems, IDC surveyed consumers and business in 15 countries: China, Malaysia, Taiwan, Spain, Romania, Brazil, Bolivia, Chile, Colombia, Mexico, Costa Rica, Dominican Republic, Guatemala, Kuwait, and the United States. The results of these surveys were used to populate our input models for the other countries. Within software load, IDC accounted for:

- Software running on new computers
- New software running on existing computers
- Software obtained from retired computers
- Software obtained for free as shareware or open source
- Software that runs on Windows and non-Windows OS

Legitimate software shipments are determined by dividing the software revenues in a country by the average system value (ASV) for that country. Software revenues are captured annually in 60+ countries by IDC software analysts around the world. Revenues are gathered from interviews with suppliers in the country and cross-checked with global numbers and financial statements. For the countries not normally covered by IDC, the data were either collected in-country or modeled regionally out of our rest-of-region estimates. Software revenues are gathered by type – such as application, infrastructure, and development tools – and by software running on Windows and non-Windows operating systems. It was also allocated to software running on new systems bought during the year and on systems that were already in place.

ASVs are estimated country-by-country, by country and regional analysts, for five software categories (e.g., collaboration, office, security, OS, other) for each hardware type and Windows and non-Windows software. Prices were gathered from IDC's pricing trackers, local research, and interviews with the channel. They included adjusting for OEM and channel-loaded software, as well as software from local suppliers. ASVs were gathered in the appropriate currency depending on how the country analysts collected software revenues.

Commercial value of pirated software is calculated off the piracy rate and the market for legitimate software in a country. For instance, if the piracy rate is 60% and the market \$100 million, then the legitimate market is 40% of



the total value of all software, which would be \$250 million (\$100M/40%). Pirated software is that total minus the legitimate market (\$250M-\$100M). Thus the value of pirated software is \$150 million. the U.S.-vendor portion of that commercial value is computed by multiplying the value of pirated software by the percentage market share of U.S. vendors in a particular country.

For IIPA's February submission of its 2011 report to U.S. Trade Representative, BSA's statistics for 2010 are preliminary. Final data for 2010 will be released in May 2011.

## ENTERTAINMENT SOFTWARE

In select countries, the Entertainment Software Association (ESA) has provided estimates of the overall number of connections made, during 2010, by users of leading peer-to-peer (P2P) protocols for purposes of making unauthorized copies of particular ESA member game titles. The methodology underlying these estimates is as follows:

Vendors for ESA's online enforcement program monitor for connection activity involving approximately 230 of ESA members' leading game titles on major public P2P networks. The data is broken down, by country, based on the country of operation of the ISP.

This data is only a subset of the overall downloading activity occurring during the monitoring period, as it accounts only for file sharing connections made through certain P2P protocols (BitTorrent, eDonkey, Gnutella, Ares) for purposes of sharing particular game files, but does not include downloads of those files that occur directly from hosted content, such as games found "one-click" hosting sites, such as rapidshare.com.

Because it is premised on a selection of ESA member game titles, this methodology does not take into account piratical activity involving unmonitored member titles and titles of non-member publishers. In addition, this methodology likewise does not take into account piratical activity for unverified copies of titles being shared on P2P networks.

Inferences regarding detections per capita and detections per internet user rely on data from the *CIA World Factbook* (<https://www.cia.gov/library/publications/the-world-factbook/>) and other public sources.

## RECORDS AND MUSIC

The Recording Industry Association of America (RIAA) collects market data from the local industry or from executives with responsibility for the particular territory. The estimates are based on local surveys of the market conditions in each territory. Each submission is reviewed against a range of sources:

- Market surveys by anti-piracy personnel and/or third parties;
- Optical disc industry and CD-R burning data provided by third-party consultants;
- Legitimate sales;
- Enforcement data and anti-piracy developments;
- Historical piracy estimates; and where possible,
- Economic indicators, professional surveys and academic studies of piracy or counterfeit goods.
- Where possible, legitimate revenue from online and mobile networks.

The numbers produced by the music industry in most cases reflect estimates of the level and value of pirate sales of U.S. repertoire. This does not take into account downstream (or value chain) losses from high piracy levels acting as a drag on the economic development of legitimate markets. In cases where circumstances permit, rather than reporting pirate sales, RIAA projects unit displacement (real losses). In such cases, "loss" data does not reflect the value of pirate sales but rather the value of estimated lost sales. In most cases, this would be significantly higher than the value of pirate sales. Where possible, RIAA estimates losses and piracy rates occurring via online and mobile networks and in appropriate cases has so designated this in the text of the country report.