

Software Management: Security Imperative, Business Opportunity

BSA Global Software Survey — In Brief

KEY FINDINGS

Around the world, software has become one of the most ubiquitous and essential tools businesses use to perform their most fundamental everyday tasks — from tracking sales, maintaining books, targeting markets, communicating with customers, collaborating with partners, to boosting productivity.

Too often today however, users are seeing their efforts to harness innovative technologies hampered by crippling security threats, including exposure to malware. It is increasingly clear that malware infections are tightly linked to the use of unlicensed software. As a result, many CIOs are coming to understand the true costs of unlicensed software and taking pragmatic steps to improve their software management.

To better understand these impacts and opportunities, BSA's Global Software Survey, conducted in partnership with IDC, set out to quantify the volume and value of unlicensed software installed on personal computers across more than 110 national and regional economies. The results show that, although CIOs are aware that using unlicensed software creates security risks, 37 percent of software installed on personal computers is still unlicensed.

Use of unlicensed software, while down slightly, is still widespread. Despite a global two-point drop in unlicensed software installation rates during the last two years, unlicensed software is still being used around the globe at alarming rates, accounting for 37 percent of software installed on personal computers. Although the overall commercial value of unlicensed software has also been declining, the majority of all countries in the survey still have unlicensed rates of 50 percent or higher. These high rates don't just delay the local economic benefits that are associated with thriving technology use, they impede growth in a company's bottom line and induce unprecedented security risks.

CIOs are finding unlicensed software is increasingly risky and expensive.

Organizations now face a one-in-three chance of encountering malware when they obtain or install an unlicensed software package or buy a computer with unlicensed software on it. Each malware attack can cost a company \$2.4 million on average and can take up to 50 days to resolve. To the extent that the infection leads to company downtime, or lost business data, it can also seriously affect the company's brand and reputation. The cost for dealing with malware that is associated with unlicensed software is growing too. It can now cost a company more than \$10,000 per infected computer, and costs companies worldwide nearly \$359 billion a year. Avoiding the security threats from malware is now the number one reason CIOs cite for ensuring the software on their network is fully licensed.

Improving software compliance is now an economic enabler and security imperative.

With growing costs from malware, business leaders are increasingly turning to fully licensed software that can be patched with the latest updates as a key line of defense against crippling malware incursions, data breaches, and other security risks. More and more leaders are also realizing that improving their ability to manage software across an entire organization can be a powerful new tool to help them decrease downtime, and significantly boost their bottom line. In fact, IDC estimates that when companies take pragmatic steps to improve their software management, they can boost their bottom line by as much as 11 percent.

Organizations can take meaningful steps today to improve software management and achieve important gains.

To access these benefits, organizations can implement proven software asset management (SAM) best practices to improve their software asset management and get more out of their technology. SAM not only helps CIOs ensure that software running on their network is legitimate and fully licensed, it can also help decrease debilitating cyber-risks, improve productivity, reduce downtime, centralize license management, and reduce costs. Studies show that organizations can achieve as much as 30 percent savings in annual software costs by implementing a robust SAM and software license optimization program.

RATES AND COMMERCIAL VALUES OF UNLICENSED PC SOFTWARE INSTALLATIONS

	RATES OF UNLICENSED SOFTWARE INSTALLATION				COMMERCIAL VALUE OF UNLICENSED SOFTWARE (\$M)			
	2017	2015	2013	2011	2017	2015	2013	2011
ASIA PACIFIC								
Australia	18%	20%	21%	23%	\$540	\$579	\$743	\$763
Bangladesh	84%	86%	87%	90%	\$226	\$236	\$197	\$147
Brunei	64%	66%	66%	67%	\$18	\$19	\$13	\$25
China	66%	70%	74%	77%	\$6,842	\$8,657	\$8,767	\$8,902
Hong Kong	38%	41%	43%	43%	\$277	\$320	\$316	\$232
India	56%	58%	60%	63%	\$2,474	\$2,684	\$2,911	\$2,930
Indonesia	83%	84%	84%	86%	\$1,095	\$1,145	\$1,463	\$1,467
Japan	16%	18%	19%	21%	\$982	\$994	\$1,349	\$1,875
Malaysia	51%	53%	54%	55%	\$395	\$456	\$616	\$657
New Zealand	16%	18%	20%	22%	\$62	\$66	\$78	\$99
Pakistan	83%	84%	85%	86%	\$267	\$276	\$344	\$278
Philippines	64%	67%	69%	70%	\$388	\$431	\$444	\$338
Singapore	27%	30%	32%	33%	\$235	\$290	\$344	\$255
South Korea	32%	35%	38%	40%	\$598	\$657	\$712	\$815
Sri Lanka	77%	79%	83%	84%	\$138	\$163	\$187	\$86
Taiwan	34%	36%	38%	37%	\$254	\$264	\$305	\$293
Thailand	66%	69%	71%	72%	\$714	\$738	\$869	\$852
Vietnam	74%	78%	81%	81%	\$492	\$598	\$620	\$395
Other AP	87%	87%	91%	91%	\$442	\$491	\$763	\$589
TOTAL AP	57%	61%	62%	60%	\$16,439	\$19,064	\$21,041	\$20,998
CENTRAL AND EASTERN EUROPE								
Albania	74%	73%	75%	75%	\$10	\$10	\$10	\$6
Armenia	85%	86%	86%	88%	\$17	\$18	\$26	\$26
Azerbaijan	81%	84%	85%	87%	\$50	\$90	\$103	\$67
Belarus	82%	85%	86%	87%	\$59	\$76	\$173	\$87
Bosnia	61%	63%	65%	66%	\$24	\$24	\$21	\$15
Bulgaria	57%	60%	63%	64%	\$72	\$78	\$101	\$102
Croatia	50%	51%	52%	53%	\$48	\$49	\$64	\$74
Czech Republic	32%	33%	34%	35%	\$149	\$150	\$182	\$214
Estonia	41%	42%	47%	48%	\$16	\$16	\$20	\$25
FYROM	63%	64%	65%	66%	\$15	\$15	\$19	\$22
Georgia	81%	84%	90%	91%	\$22	\$25	\$40	\$52
Hungary	36%	38%	39%	41%	\$104	\$107	\$127	\$143
Kazakhstan	74%	73%	74%	76%	\$62	\$89	\$136	\$123
Latvia	48%	49%	53%	54%	\$22	\$23	\$29	\$32
Lithuania	50%	51%	53%	54%	\$35	\$37	\$47	\$44
Moldova	83%	86%	90%	90%	\$35	\$36	\$57	\$45
Montenegro	74%	76%	78%	79%	\$6	\$6	\$7	\$7
Poland	46%	48%	51%	53%	\$415	\$447	\$563	\$618
Romania	59%	60%	62%	63%	\$151	\$161	\$208	\$207
Russia	62%	64%	62%	63%	\$1,291	\$1,341	\$2,658	\$3,227
Serbia	66%	67%	69%	72%	\$51	\$54	\$70	\$104
Slovakia	35%	36%	37%	40%	\$51	\$55	\$67	\$68
Slovenia	41%	43%	45%	46%	\$28	\$30	\$41	\$51
Ukraine	80%	82%	83%	84%	\$108	\$129	\$444	\$647
Rest of CEE	86%	87%	89%	90%	\$69	\$70	\$105	\$127
TOTAL CEE	57%	58%	61%	62%	\$2,910	\$3,136	\$5,318	\$6,133
LATIN AMERICA								
Argentina	67%	69%	69%	69%	\$308	\$554	\$950	\$657
Bolivia	79%	79%	79%	79%	\$94	\$98	\$95	\$59
Brazil	46%	47%	50%	53%	\$1,665	\$1,770	\$2,851	\$2,848
Chile	55%	57%	59%	61%	\$283	\$296	\$378	\$382
Colombia	48%	50%	52%	53%	\$241	\$281	\$396	\$295
Costa Rica	58%	59%	59%	58%	\$80	\$90	\$98	\$62
Dominican Republic	75%	76%	75%	76%	\$74	\$84	\$73	\$93
Ecuador	68%	68%	68%	68%	\$132	\$137	\$130	\$92
El Salvador	80%	81%	80%	80%	\$61	\$63	\$72	\$58
Guatemala	78%	79%	79%	79%	\$165	\$169	\$167	\$116
Honduras	75%	75%	74%	73%	\$32	\$36	\$38	\$24
Mexico	49%	52%	54%	57%	\$760	\$980	\$1,211	\$1,249
Nicaragua	81%	82%	82%	79%	\$20	\$23	\$23	\$9
Panama	71%	72%	72%	72%	\$112	\$117	\$120	\$74
Paraguay	83%	84%	84%	83%	\$76	\$89	\$115	\$73
Peru	62%	63%	65%	67%	\$190	\$210	\$249	\$209
Uruguay	67%	68%	68%	68%	\$51	\$57	\$74	\$85
Venezuela	89%	88%	88%	88%	\$317	\$402	\$1,030	\$668
Other LA	82%	83%	84%	84%	\$296	\$331	\$352	\$406
TOTAL LA	52%	55%	59%	61%	\$4,957	\$5,787	\$8,422	\$7,459

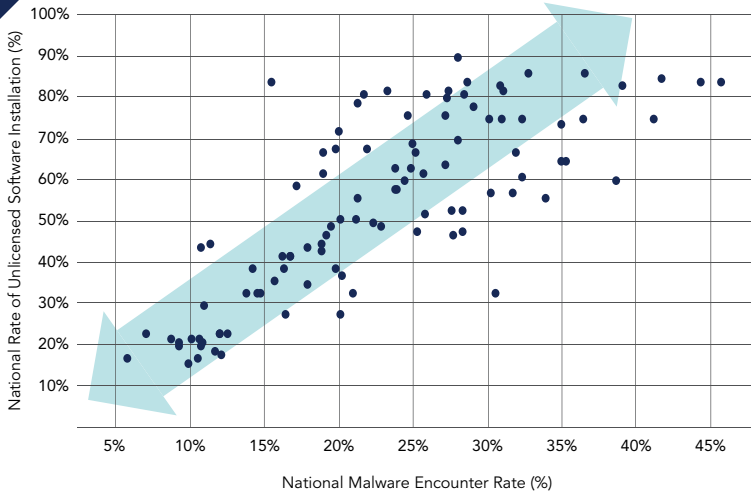
SOFTWARE MANAGEMENT: SECURITY IMPERATIVE, BUSINESS OPPORTUNITY

	RATES OF UNLICENSED SOFTWARE INSTALLATION				COMMERCIAL VALUE OF UNLICENSED SOFTWARE (\$M)			
	2017	2015	2013	2011	2017	2015	2013	2011
MIDDLE EAST AND AFRICA								
Algeria	82%	83%	85%	84%	\$70	\$84	\$102	\$83
Bahrain	52%	54%	53%	54%	\$32	\$34	\$27	\$23
Botswana	80%	79%	79%	80%	\$22	\$23	\$20	\$16
Cameroon	80%	82%	82%	83%	\$20	\$21	\$9	\$9
Egypt	59%	61%	62%	61%	\$64	\$157	\$198	\$172
Iraq	85%	85%	86%	86%	\$107	\$120	\$116	\$172
Israel	27%	29%	30%	31%	\$165	\$161	\$177	\$192
Ivory Coast	79%	80%	80%	81%	\$21	\$22	\$24	\$16
Jordan	55%	56%	57%	58%	\$32	\$34	\$35	\$31
Kenya	74%	76%	78%	78%	\$99	\$113	\$128	\$85
Kuwait	57%	58%	58%	59%	\$86	\$94	\$97	\$72
Lebanon	69%	70%	71%	71%	\$61	\$65	\$65	\$52
Libya	90%	90%	89%	90%	\$66	\$65	\$50	\$60
Mauritius	52%	54%	55%	57%	\$6	\$7	\$7	\$7
Morocco	64%	65%	66%	66%	\$52	\$57	\$69	\$91
Nigeria	80%	80%	81%	82%	\$123	\$232	\$287	\$251
Oman	60%	60%	60%	61%	\$56	\$59	\$65	\$36
Qatar	47%	48%	49%	50%	\$64	\$72	\$77	\$62
Reunion	38%	39%	39%	40%	\$2	\$2	\$1	\$1
Saudi Arabia	47%	49%	50%	51%	\$356	\$412	\$421	\$449
Senegal	74%	75%	77%	78%	\$12	\$12	\$9	\$9
South Africa	32%	33%	34%	35%	\$241	\$274	\$385	\$564
Tunisia	73%	74%	75%	74%	\$39	\$49	\$66	\$51
Turkey	56%	58%	60%	62%	\$208	\$291	\$504	\$526
UAE	32%	34%	36%	37%	\$210	\$226	\$230	\$208
Yemen	88%	87%	87%	89%	\$10	\$11	\$9	\$15
Zambia	80%	81%	81%	82%	\$4	\$4	\$3	\$3
Zimbabwe	89%	90%	91%	92%	\$7	\$7	\$4	\$4
Other Africa	83%	84%	85%	86%	\$364	\$419	\$484	\$363
Other ME	85%	84%	85%	87%	\$478	\$569	\$640	\$536
TOTAL MEA	56%	57%	59%	58%	\$3,077	\$3,696	\$4,309	\$4,159
NORTH AMERICA								
Canada	22%	24%	25%	27%	\$819	\$893	\$1,089	\$1,141
Puerto Rico	41%	41%	42%	42%	\$27	\$28	\$27	\$44
United States	15%	17%	18%	19%	\$8,612	\$9,095	\$9,737	\$9,773
TOTAL NA	16%	17%	19%	19%	\$9,458	\$10,016	\$10,853	\$10,958
WESTERN EUROPE								
Austria	19%	21%	22%	23%	\$121	\$131	\$173	\$226
Belgium	22%	23%	24%	24%	\$182	\$190	\$237	\$252
Cyprus	44%	45%	47%	48%	\$14	\$14	\$19	\$19
Denmark	20%	22%	23%	24%	\$167	\$176	\$224	\$222
Finland	22%	24%	24%	25%	\$166	\$171	\$208	\$210
France	32%	34%	36%	37%	\$1,996	\$2,101	\$2,685	\$2,754
Germany	20%	22%	24%	26%	\$1,566	\$1,720	\$2,158	\$2,265
Greece	61%	63%	62%	61%	\$173	\$189	\$220	\$343
Iceland	44%	46%	48%	48%	\$12	\$10	\$12	\$17
Ireland	29%	32%	33%	34%	\$79	\$87	\$107	\$144
Italy	43%	45%	47%	48%	\$1,278	\$1,341	\$1,747	\$1,945
Luxembourg	17%	19%	20%	20%	\$20	\$21	\$30	\$33
Malta	43%	44%	44%	43%	\$4	\$4	\$5	\$7
Netherlands	22%	24%	25%	27%	\$448	\$481	\$584	\$644
Norway	21%	23%	25%	27%	\$159	\$178	\$248	\$289
Portugal	38%	39%	40%	40%	\$137	\$145	\$180	\$245
Spain	42%	44%	45%	44%	\$859	\$913	\$1,044	\$1,216
Sweden	19%	21%	23%	24%	\$260	\$288	\$397	\$461
Switzerland	21%	23%	24%	25%	\$399	\$448	\$469	\$514
United Kingdom	21%	22%	24%	26%	\$1,421	\$1,935	\$2,019	\$1,943
TOTAL WE	26%	28%	29%	32%	\$9,461	\$10,543	\$12,766	\$13,749
TOTAL WORLDWIDE	37%	39%	43%	42%	\$46,302	\$52,242	\$62,709	\$63,456
European Union	28%	29%	31%	33%	\$9,982	\$11,060	\$13,486	\$14,433
BRIC Countries*	60%	64%	67%	70%	\$12,272	\$14,452	\$17,187	\$17,907

*BRIC Countries are Brazil, Russia, India, and China.

SAM Decreases Cyber-Risks and Boosts Bottom Lines

UNLICENSED SOFTWARE AND MALWARE ENCOUNTERS ARE TIGHTLY LINKED



Source: IDC

CIOs REPORT THE TOP BENEFITS OF STRONG SOFTWARE COMPLIANCE



THREE-TIERED IMPLEMENTATION FOR SAM

IT Asset Management System based on ISO/IEC 19770-1:2017
The 2017 edition of the ISO/IEC 19770-1 standard provides a holistic approach to implementing an effective ISO-aligned system for SAM.

TRUSTWORTHY DATA

TIER
1

The first stage involves gaining a thorough understanding of what you have so you can manage it comprehensively. It begins by assessing the software on the system to enable compliance with software license agreements. In addition to license management, this tier also enables organizations to develop the processes necessary for change management, data management, and security management.

LIFE CYCLE INTEGRATION

The second stage builds upon the first, and helps organizations achieve greater efficiency and cost-effectiveness by improving management across the entire IT asset life cycle — from specification, to acquisition, development, release, deployment, operation and retirement.

TIER
2

TIER
3

OPTIMIZATION

The third stage helps organizations achieve greater efficiency and cost effectiveness by focusing on functional areas like contracts and financial management.

ABOUT BSA | THE SOFTWARE ALLIANCE

BSA | The Software Alliance (www.bsa.org) is the leading advocate for the global software industry before governments and in the international marketplace. Its members are among the world's most innovative companies, creating software solutions that spark the economy and improve modern life. With headquarters in Washington, DC, and operations in more than 60 countries, BSA pioneers compliance programs that promote legal software use and advocates for public policies that foster technology innovation and drive growth in the digital economy.



www.bsa.org

BSA Worldwide Headquarters
20 F Street, NW
Suite 800
Washington, DC 20001

+1.202.872.5500
@BSAnews
@BSATheSoftwareAlliance

BSA Asia-Pacific
300 Beach Road
#25-08 The Concourse
Singapore 199555

+65.6292.2072
@BSAnewsAPAC

BSA Europe, Middle East & Africa
65 Petty France
Ground Floor
London, SW1H 9EU
United Kingdom

+44.207.340.6080
@BSAnewsEU