# OProject@Home - distributed computing

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OProject@Home is a volunteer distributed computing project running on the Berkeley Open Infrastructure for Network Computing (BOINC) and is based on a dedicated library OLib.

Shor's Algorithm and Shor's Algorithm DP are the main subprojects of OProject@Home. The objective is to test quantum algorithms (e.g. Shor's algorithm) of quantum computing. GSCE-SV verifies the correctness of Goldbach's conjecture, while ALX is a Non-CPU-intensive (nci) subproject capable of running on ARM-based CPUs running Android or Linux. It is used to research and develop artificial intelligence and computer networks. Project supports the PlayStation 3.

The Weird Engine subproject calculates the weird numbers (sequence A006037 in OEIS). Numbers are available in the project database. According to the OEIS it is the largest publicly available database of such numbers.

These ongoing work on the application analyzing status of water on Earth. OProject@Home uses data from NASA and NOAA satellites. Analyzed data are taken from devices AVHRR and AMSR that are used to measure the Earth's radiation predominantly in the infrared. Based on the information is easy to calculate the sea surface temperature and ice concentration at any point on Earth. This information will enable to perform the analysis and simulations climate
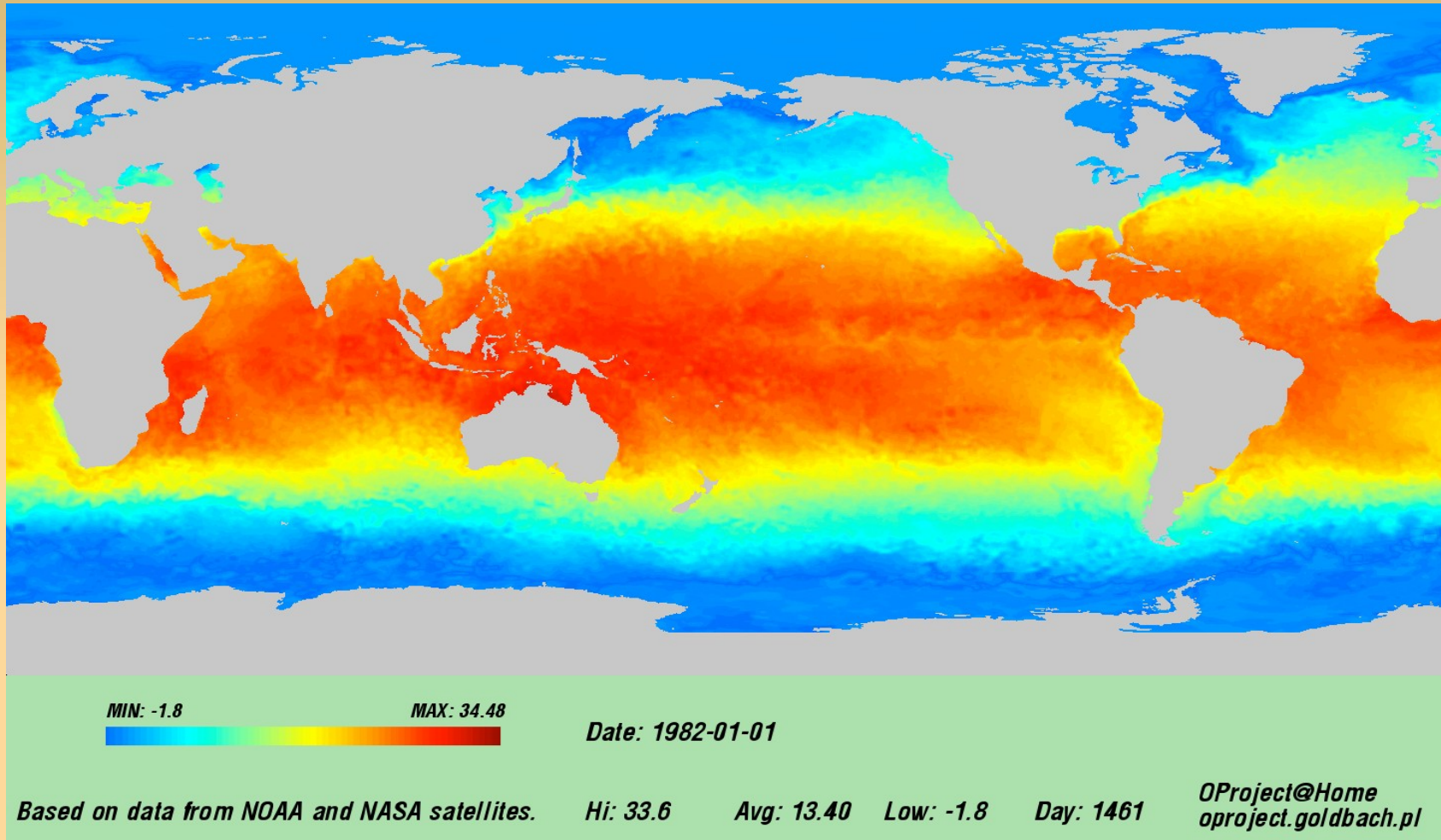
Map of sea surface temperature of 1 January 1982 generated by OProject@Home.

Project name	Users	last day	Hosts	last day	Teams	last day	Countries
Einstein@Home	336,959	65	3,525,684	12,796	10,589	0	222
BOINC combined	2,533,002	405	8,516,114	3,022	97,677	8	273
World Community Grid	400,710	51	1,673,306	1,058	21,772	3	224
SETI@Home	1,361,525	188	3,342,747	913	61,202	3	233
PrimeGrid	53,334	18	185,914	320	2,566	0	186
Climate Prediction	267,325	41	549,191	267	7,665	0	221
Rosetta@Home	355,179	45	1,105,137	190	10,076	1	225
MilkyWay@home	155,131	44	312,959	113	3,494	2	209
DistrRTgen	13,950	14	32,318	74	774	1	150
Asteroids@home	3,580	52	7,354	71	295	2	89
MindModeling@Home	4,624	23	16,378	66	504	0	99
Malaria Control	66,735	14	158,919	65	2,179	0	208
eOn	8,230	8	23,950	52	586	0	114
SIMAP	41,493	9	139,965	49	2,279	0	181
Volpex	614	1	2,487	49	129	2	48
Cosmology@Home	52,525	21	98,735	45	1,757	2	188
LHC@Home Classic	110,234	9	286,835	38	4,602	0	193
WUProp@Home	4,115	0	33,374	38	464	0	95
Collatz Conjecture	30,952	11	76,549	34	1,354	0	162
OProject@Home	1,595	9	8,848	34	196	0	72
FightMalaria@Home	5,402	19	11,580	33	250	0	113
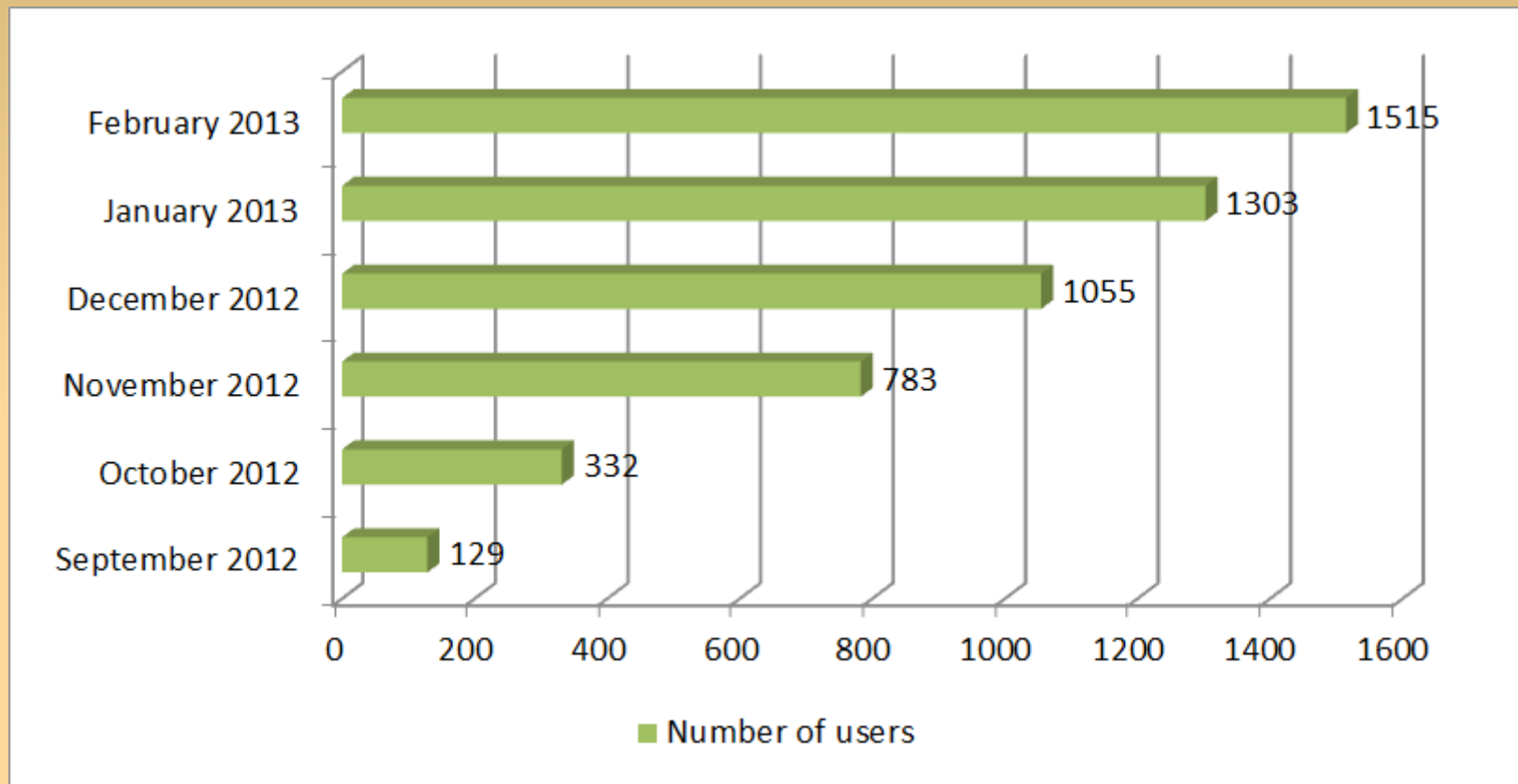
Increase in the number of users in the OProject@Home system.
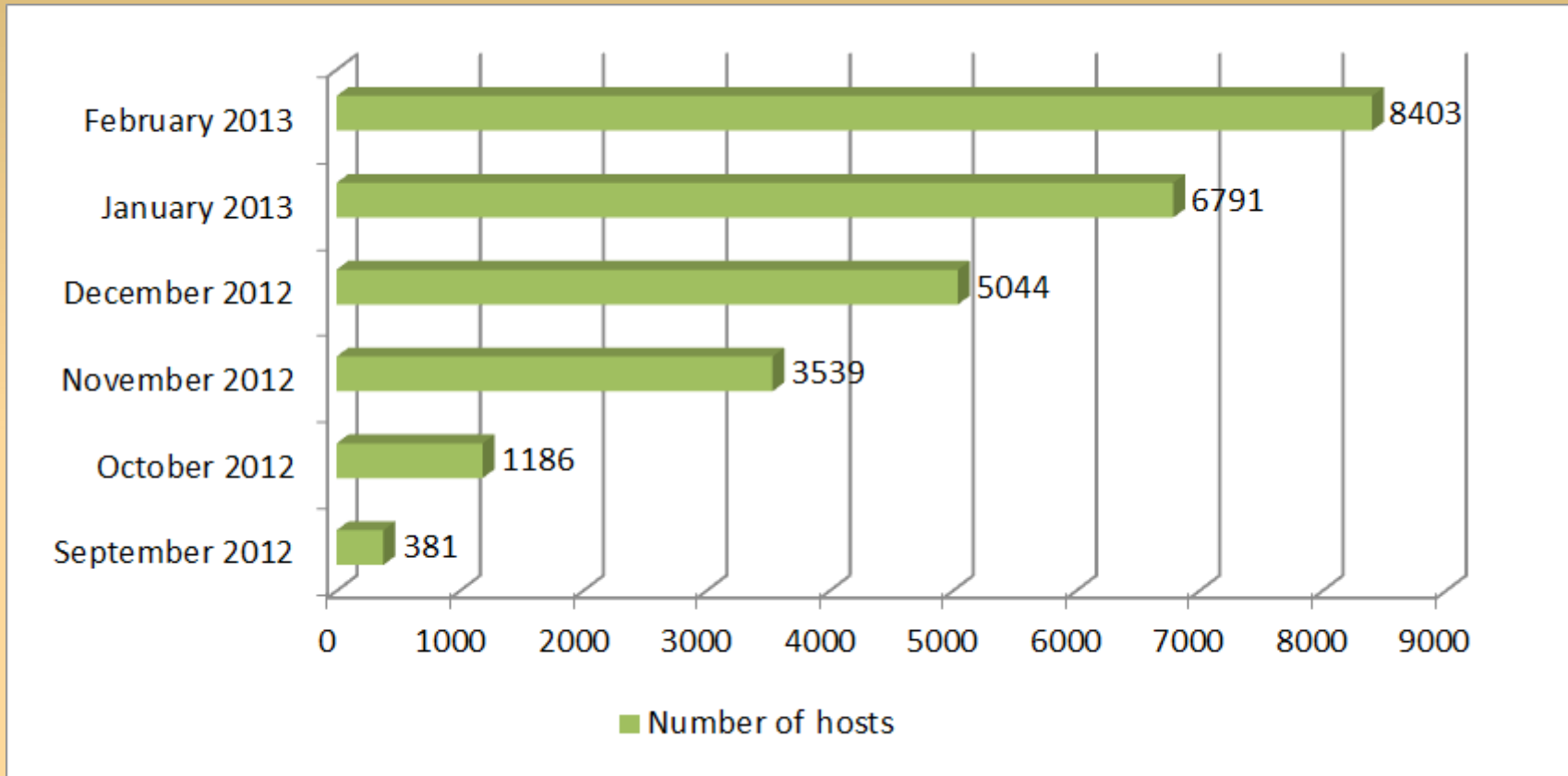
Increase in the number of hosts in the OProject@Home system.
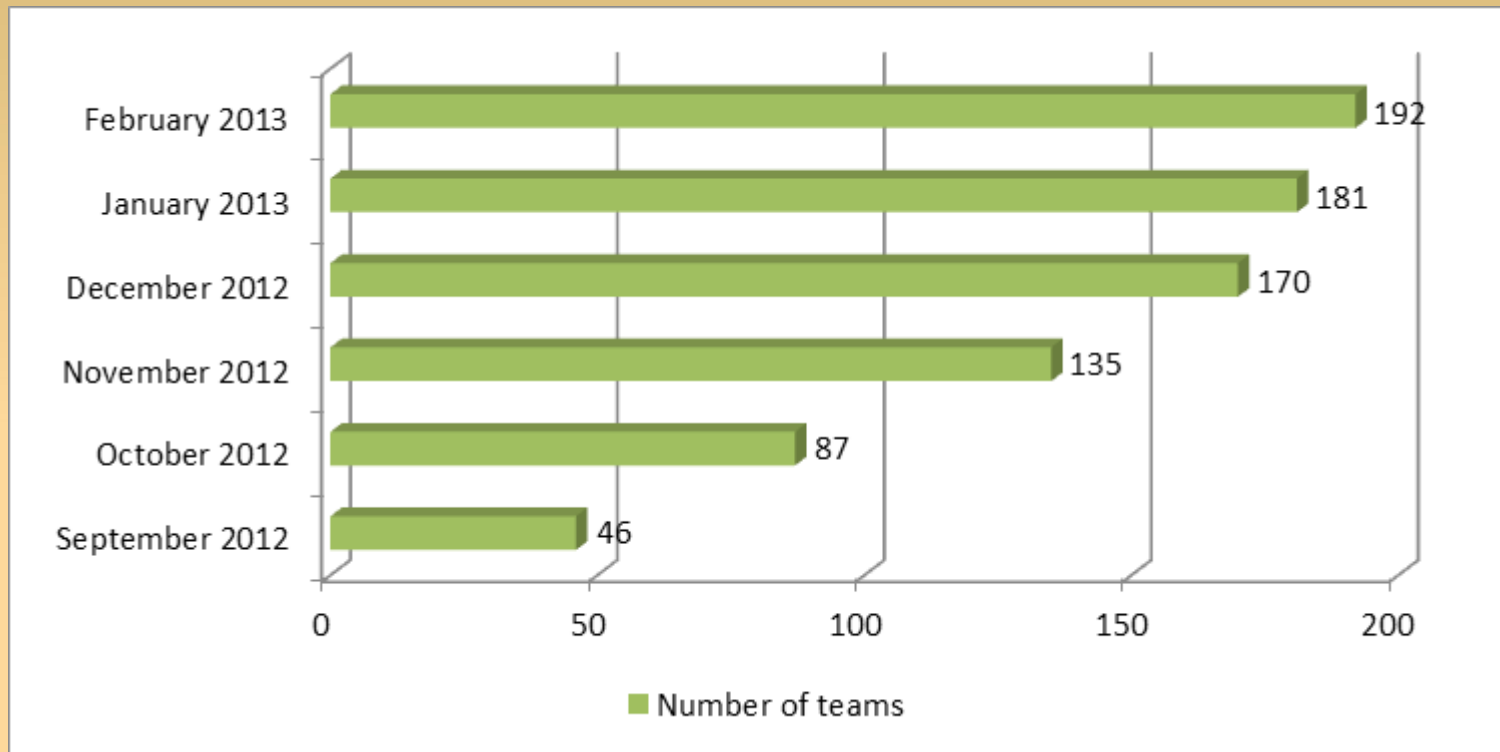
Increase in the number of teams in the OProject@Home system.

Thank you for your attention.

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