

VirtualPBX

VirtualPBX is a telephone system for technical support personnel. When a customer calls to a toll-free number, the system offers a set of services where the customer can select the language, hardware type to discuss during consultation. Further, the system selects a certain support engineer and forwards the call to him.

Clients acquire significant advantages due to efficiency of technical support staff operations that are able to resolve issues with the equipment. The customer pays only for the time spent on technical support call. Pauses and menu navigation minutes are not included into the service costs.

Technical staff also gets advantages from the system use:

Technicians make money on providing consultations to clients. A Technician can accept calls on personal mobile phone at any time being anywhere. Time line for a call to get thru to the technician can be set via the Web Control Panel of the system (to prevent calling during nighttime for example).

System administrator can manage the VirtualPBX behavior, set prices for customer calls, set price for technicians etc.

The system is multilingual. Currently all voice phrases in the system are in two languages: English and Spanish.

Technologies used:

VoIP platform "Open Source PBX Asterisk" has been used to develop the system. Significant changes to Asterisk has been made to implement non-standard commutation schemas and billing. Programming language C/C++.

To develop Web Control Panel the following technologies have been used: Apache, PHP, MySQL.

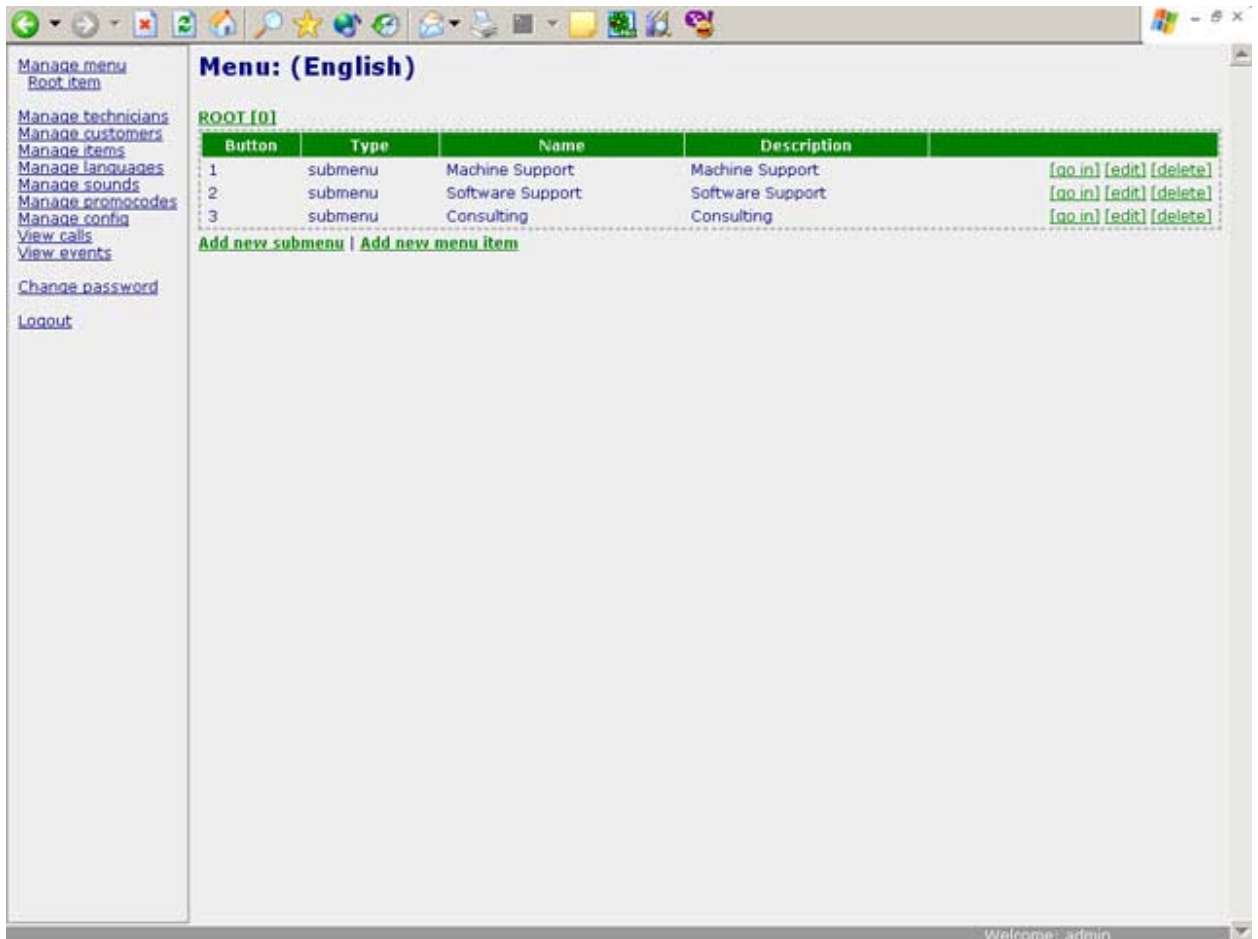
Enterra conducted market research to develop the system. We found out that similar systems were built on high-cost hardware platforms therefore making a solution costs too high. On the contrary, the solution from Enterra is a low-cost but however a robust, efficient and highly reliable system.

Customer: **The Embroidery Warehouse, Inc.**

Year: 2005

URL: <http://www.embroiderytechs.com>

Screenshots



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View calls:

Filter criteria:
 Id: Date: Technician: Customer:
 Billed: Customer CallerID: Technician CallerID: Direction: Filter

Id	Date	Total Time	Billed Time	Real Billed Time	Call Price	Call Cost	Promo	Technician	Customer	Billed	Technician CallerID	Customer CallerID
189	Apr/17/05 01:19AM	0:13	0:00	0:00	0.00	0.00				no		
188	Apr/16/05 12:06AM	0:09	0:00	0:00	0.00	0.00				no		9738546117
187	Apr/15/05 03:17AM	0:36	0:12	0:00	1.98	0.00		Bill (Bill Smirnov)		no		6824299080
186	Apr/15/05 03:17AM	0:23	0:00	0:00	1.98	0.00				no		6824299080
185	Apr/15/05 03:16AM	0:13	0:00	0:00	1.98	0.00				no		6824299080
184	Apr/15/05 12:23AM	0:24	0:00	0:00	0.00	0.00				no		
183	Apr/14/05 11:49AM	0:45	0:08	0:00	1.98	0.00				no		700000000
182	Apr/14/05 11:47AM	0:44	0:06	1:00	1.98	1.98				no		700000000
181	Apr/14/05 11:47AM	0:03	0:00	0:00	0.00	0.00				no		700000000
180	Apr/14/05 11:39AM	0:43	0:08	1:00	1.98	1.98				no		700000000
179	Apr/14/05 11:32AM	0:48	0:10	1:00	1.98	1.98				no		700000000
178	Apr/14/05 11:31AM	0:46	0:00	0:00	1.98	0.00				no		700000000
177	Apr/14/05 11:29AM	0:49	0:08	1:00	1.98	1.98				no		700000000
176	Apr/14/05 11:28AM	0:58	0:00	0:00	1.98	0.00				no		700000000
174	Apr/14/05 11:26AM	0:07	0:00	0:00	0.00	0.00				no		700000000
175	Apr/14/05 11:25AM	1:08	0:00	0:00	1.98	0.00				no		sholohov
173	Apr/14/05 11:24AM	0:16	0:00	0:00	0.00	0.00				no		sholohov
172	Apr/13/05 04:31AM	0:46	0:12	1:00	1.98	1.98		Bill (Bill Smirnov)		no		8179259701
171	Apr/13/05 02:53AM	0:51	0:00	0:00	0.00	0.00				no		9034514815
170	Apr/12/05 02:43AM	1:26	0:00	0:00	1.98	0.00				no		4505343638

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View events:

Filter criteria:
 Date: [] / [] / [] Type: [] Filter

Date	Type	Description
Apr/19/05 11:03AM	Warning	Unsuccessful Bill, select call error. callId=213
Apr/19/05 10:50AM	Warning	Unsuccessful Bill, select call error. callId=213
Apr/13/05 04:32AM	Notice	Call with billed_time and without customer. callId=172
Apr/05/05 06:20AM	Notice	Call with billed_time and without customer. callId=145
Mar/15/05 08:25PM	Notice	Successful Bill, Transaction result:AUTH transactionId=2939 callId=131
Mar/15/05 01:24PM	Notice	Successful Bill, Transaction result:AUTH transactionId=2938 callId=127
Mar/15/05 09:20AM	Notice	Successful Bill, Transaction result:AUTH transactionId=2937 callId=125
Mar/15/05 04:37AM	Notice	Successful Bill, Transaction result:AUTH transactionId=2933 callId=125
Mar/15/05 04:36AM	Notice	Successful Bill, Transaction result:AUTH transactionId=2932 callId=124
Mar/15/05 04:36AM	Notice	Successful Bill, Transaction result:AUTH transactionId=2931 callId=124
Mar/15/05 04:35AM	Notice	Successful Bill, Transaction result:AUTH transactionId=2930 callId=124
Mar/14/05 07:03PM	Notice	Successful Bill, Transaction result:AUTH transactionId=2925 callId=122
Mar/14/05 06:49PM	Notice	Successful Bill, Transaction result:AUTH transactionId=2924 callId=121
Mar/14/05 04:18PM	Notice	Successful Bill, Transaction result:AUTH transactionId=2923 callId=119
Mar/14/05 04:17PM	Notice	Call with billed_time and without customer. callId=120
Mar/14/05 03:57PM	Notice	Successful Bill, Transaction result:AUTH transactionId=2922 callId=119
Mar/14/05 03:51PM	Notice	Successful Bill, Transaction result:AUTH transactionId=2921 callId=118
Mar/14/05 03:50PM	Notice	Unable to send signal to billing subsystem. callId=117
Mar/14/05 03:49PM	Notice	Call with billed_time and without customer. callId=116
Mar/14/05 01:23PM	Notice	Successful Bill, Transaction result:AUTH transactionId=2920 callId=115

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Welcome, admin

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