Your contact	Our contact	Quotation no	Date
Leif Johansson	Niclas Jansson	20297	2015-04-28

Budgetary Quotation

BitSim AB ("BitSim") hereby has the pleasure to offer a platform development project. The customer, in this case, NUNOC ("NORDUnet A/S Danmark, Filial NUNOC (NORDUnet NOC), with VAT no SE516405-1285"), wants a reference design within the crypto area to be delivered as Open Source.

This quotation is based on the information and material that BitSim has received by e-mail, telephone and meetings so far. The scope is to develop a platform with a main processor and an FPGA, and some other supporting circuits. The idea is to re-use from similar platforms, like the one from for example Noveda and Freescale.

1 Services performed by BitSim

1. Development of a PCB according to the Alpha-schematic overview (from an e-mail by Fredrik Thulin March 26). The Alpha-schematic is a proposal of a solution from the customer. It is possible for BitSim to change or enhance this suggestion. All changes will be discussed with the customer.

2. Handling of all the commercial issues towards the sub-contractors for board manufacturing and assembly.
   5 (?) no of boards will be delivered to the customer.

3. BitSim will have its own internal person responsible for project managment.

4. No VHDL-code for the FPGA, nor SW for the processors will be developed. Maybe we develop some smaller VHDL/SW-parts for testing of the board during board bring-up.

5. The integration of HW, FPGA-code and processor-SW will be done together with the customer. It is not known today how this work will be done, nor the amount of work. It will be finalized together during the project.

6. Delivery of the boards, all material for manufacturing and assembly of the boards and the test-SW (if developed) after finalizing the project.

7. The customer is responsible to be present in the development team, for assistance support, support and technical "know-how".

Main office
Brahev 2
SE- 169 69 Solna
Sweden
Tel: +46 (0)8-54 55 56 00

VAT SE 556586553101

Suggested milestones – MS (estimations)

1. System Design
   BitSim delivers a System Design Spec for review one week after project start.
   After customer agreement, the project can continue.

2. Time and test plan
   A more detailed time schedule and a documented test plan will be delivered. The
   test plan will describe how the board will be tested.

3. HW/board-schematic
   Two months after the System Design Spec has been agreed on, BitSim delivers
   the first version of the board schematic for review.

4. PCB-layout
   Two months after the customer has accepted the board schematic/design, BitSim
   delivers the first version of the PCB-layout for review.

5. Boards
   The boards will arrive to BitSim's premises.

6. Test results
   Within two weeks after BitSim has received the fully assembled boards, BitSim
   delivers the board to the customer, where the integration phase with HW, FPGA
   and processor SW can start.
   This under the circumstance, that, if any errors are located, the board can easily
   be patched. When designing the first version of the board, BitSim will try to
   design it in such a way that it will be easy to debug and to do simple patches.

7. Project end
   The project ends and BitSim delivers all the boards and material to the customer.

2 Risks

Uncertainties that can affect the time schedule and time spent:
- Problems relating to the reference designs, the chosen components (errata)
  etc.
- It is not unusual to make a second version of the board (respin), since this
  board is a high speed design.
- Summer vacation
- The integration phase, were the HW, FPGA and processor SW will run
  together are a critical and difficult part of this project. It is very difficult to
  anticipate and estimate the needed time to get everything working properly
  right now.

3 Suggested Pricing and Conditions

BitSim will use its own design tools for the board development (schematic/layout), so no
extra cost will be added for this usage.

Other costs for other tools that might be needed, components and manufacturing sub-
contractors, will be added. For such an extra cost, a 10% administrative fee will be added.

This assignment will last around 4-6 months (average one (1) person working during the entire project), were the first goal is to have the schematic ready before the summer vacation. BitSim will try to parallelize the work as much as possible (on customer request), where it make sense. For example, the test plan (how shall the board be tested when received from sub-contractors) can be done together with the schematic design. Depending of the stability and no. of unsolved issues regarding the schematic design, the PCB-layout might be done in parallel in the end of MS 3 (schematic).

Our estimations are done in a best effort manner were we need approximately 750-900 hours to finish this project.

This assignment will be handled in BitSim's premises most of the time. In the integration phase, it might be necessary to do it in the customer premises as well.

Every Monday, status reporting will be done by e-mail with no of hours worked, the progress and what will happen the following week. If needed, a telephone conference can be arranged. The customer is responsible for the overall project and has the project lead for the entire project. The customer needs to continuous accept our work on a weekly basis.

Suggested starting time: May 11 2015 or earlier.

Terms of payment: A starting fee of SEK 120 000 is charged after the customer confirmation, to start the project and this assignment. After this, 30 days net is the payment term. The prices in this quotation are exclusive of VAT.

This assignment will be charged at an hourly basis at an hourly rate of SEK 900.

5   Others

If traveling is needed outside the Stockholm area, SEK 450/h will be charged if the traveling time can't be used for related work. Such a cost must be accepted by the customer beforehand. BitSim will always try to keep the cost as low as possible.

For other conditions than described in this quotation we refer to "General Terms and Conditions IT Services, the association of Swedish IT & Telecom Industry – 2008".

This quotation is valid until May 8, 2015.

Responsible person from the customer during this project and the customer project lead, is Fredrik Thulin, Ispik AB.
Administrative responsible person from BitSim is Niclas Jansson.

We hope this quotation is accordance with your expectations. We are looking forward to a confirmation in writing.

This quotation is accepted by a written order to Niclas.Jansson@bitsim.com.

Yours sincerely,

Niclas Jansson
BitSim AB