Ting Chen[1], Dong Wang and Jin Huang found a vulnerability in a Smart Contract named Evernal on the Ethernet. The function about token sell has a logic flaw, and an attack can use it to buy the token at a lower price.

The logic flaw is located in line 267, the ether should be 1.

```
222     function buyTokens(address _investor) public payable returns (uint256){
223         require(_investor != address(0));
224         require(saleToken == true);
225         address wallet = owner;
226         uint256 weiAmount = msg.value;
227         uint256 tokens = validPurchaseTokens(weiAmount);
228         if (tokens == 0) {revert();}
229         weiRaised = weiRaised.add(weiAmount);
230         tokenAllocated = tokenAllocated.add(tokens);
231         mint(_investor, tokens, owner);
232 
233         TokenPurchase(_investor, weiAmount, tokens);
234         wallet.transfer(weiAmount);
235         return tokens;
236     }
237 
238     function validPurchaseTokens(uint256 _weiAmount) public returns (uint256) {
239         uint256 addTokens = getTotalAmountOfTokens(_weiAmount);
240         if (addTokens > balances[owner]) {
241             TokenLimitReached(tokenAllocated, addTokens);
242             return 0;
243         }
244         return addTokens;
245     }
246 
```

```
250     function getTotalAmountOfTokens(uint256 _weiAmount) internal pure returns (uint256) {
251         uint256 amountOfTokens = 0;
252         if( _weiAmount == 0.005 ether){
253             amountOfTokens = 15 * 10**3 * (10**uint256(decimals));
254         }
255         if( _weiAmount == 0.01 ether){
256             amountOfTokens = 30 * 10**3 * (10**uint256(decimals));
257         }
258         if( _weiAmount == 0.05 ether){
259             amountOfTokens = 150 * 10**3 * (10**uint256(decimals));
260         }
261         if( _weiAmount == 0.1 ether){
262             amountOfTokens = 300 * 10**3 * (10**uint256(decimals));
263         }
264         if( _weiAmount == 0.5 ether){
265             amountOfTokens = 1500 * 10**3 * (10**uint256(decimals));
266         }
267         if( _weiAmount == 0.1 ether){  // !!!here should be 1 ether
268             amountOfTokens = 3000 * 10**3 * (10**uint256(decimals));
269         }
270         return amountOfTokens;
271     }
272 
```

[1] Ting Chen, University of Electronic Science and Technology of China. http://faculty.uestc.edu.cn/chenting/zh_CN/ index.htm