PASTRY Routing Table

NodeID 10233102			
Leaf Set			
10233033	10233021	10233120	10331222
10233001	10233000	10233320	10233232
Routing Table			
- 0 - 2212102	1	- 2 - 2301203	- 3 - 1203203
0	1 – 1 – 301233	1 – 2 – 230203	1 – 3 - 021022
10 – 0 – 32203	10 – 1 – 32102	2	10 – 3 - 23302
102 – 0 – 0230	102 – 1 – 1302	102 – 2 – 2302	3
1023 – 0 – 322	1023 – 1 – 000	1023 – 2 – 121	3
10233 – 0 – 01	1	10233 – 2 – 32	
0		102331 – 2 – 0	
		2	
Neighborhood Set			
13021022	10200230	11301233	31301233
02212102	22301203	31203203	33213321

Routing Algorithm

R_l^i the entry in routing table R at column i, 0 <= i <= 2b, and row l, 0 < l < 128 / b
L_i the i-th closest nodeID in the Leaf Set L
D_l the value of the l's digit in the key D
shl(A,B) the length of the prefix shared among A and B in digits

If ($L_{-|L|/2}$ <= D <= $L_{|L|/2}$)
    // D is within range of our Leaf Set
    Foward to L_i such that |D – L_i| is minimal
Else {
    // Use the routing table
    l = shl(D, A);
    if ($R_l^{D_l}$!= null)
    {
        Forward to $R_l^{D_l}$
    }
    Else {
        // rare cases
        forward to T ∈ L ∪ R ∪ M such that shl(T,D) >= l, |T-D| < |A-D|
        }
    }