Title:

Application of Data Communication Network & SWIFT

1. What is the purpose of this activity ? (Explain in 3 – 4 lines)

The purpose of this activity is to :-

(a) Understand what are SWIFT WORKING GUIDELINES decided by Ministry of Home Affairs, India.

(b) What are security-standards for SWIFT Transactions by Banks?

(c) How SWIFT Algorithm works (as it Has More than 10,000 banks associated with it & — " — 200 countries as its members)?

(d) What was BEFORE SWIFT & AFTER SWIFT alternatives?

(e) Issues arising/facing by SWIFT Community Members?

2. Step performed in this activity (Explain in 5 – 6 lines)

Steps performed in this communication via SWIFT are as follows :-

SCENARIO 1: Both Banks Have a Direct Commercial Relationship via a Nostro/Vostro A/c

SWIFT message issued by Bank of America will be directly addressed to DBS HongKong & the funds are transferred directly between the two Banks !-

Step 1: BOA DEBIT our US' client's Bank A/c by USD 15k

Step 2: BOA CREDIT USD 15k to its Nostro A/c opened with DBS HongKong.

Step 3: DBS HongKong DEBIT USD 15k from BOA Nostro A/c.

Step 4: DBS HongKong CREDIT USD 15k to our Bank A/c, minus any fees charged for the transfer.

SCENARIO 2: Both Banks don't have a direct commercial relationship (i.e. No NOSTRO/VOSTRO) A/c

As bank's DON'T have a direct commercial relationship, SWIFT will determine how to pass the SWIFT message to successive Banks which all have Nostro/Vostro A/c's with one another.

Step 1: BOA DEBIT our US client's Bank A/c by USD 15k

Step 2: BOA CREDIT $15k to its Nostro A/c opened with Deutsche Bank

Step 3: Deutsche Bank DEBIT $15k from BOA Nostro A/c.

Step 4: Deutsche Bank DEDUCT its fee (for transaction) process & CREDIT the balance i.e. $ 14,980 to its Nostro A/c.

Step 5: DBS HongKong DEBIT USD 14,980 from Deutsche Bank's Nostro A/c.

Step 6: DBS HongKong CREDIT $14,980 to our Bank A/c, minus any fees charged for the transfer.

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WHAT is SWIFT?

SWIFT is a _messaging network_ that financial institutions use to securely transmit information & instructions through a standarized system of codes.

SWIFT → It stands for _Society for Worldwide Interbank Financial Telecommunications_. It is member-owned co-operative that provides safe & secure Financial Transactions. for its members.

WHY SWIFT system WAS CREATED?

It was created to help banks communicate faster and more securely among themselves. in relation to the processing of international payments. It simply acts as MESSENGER between banks.

HOW DOES SWIFT WORK?

SWIFT works by assigning each member institution a UNIQUE ID CODE that identifies not only the bank Name but country, city and branch SWIFT assigns each financial organizat... a unique CODE that Has either 8 or 11 characters.

EXAMPLE :➡

8 or 11 characters, made up of:

-1 alpha-2 country code
(letters only)

AA ABBCCDDD

Location code
(letters and numbers)

Branch code is optional
(letters and numbers)

BEFORE SWIFT WHAT WAS THERE IN THE WO...

Prior to SWIFT, Telex was the only available means of message confirmation for international funds transfer.

↳ PROBLEMS Associated with Telex: It was hampered by _low speed_, _security_ (A) concerns, a _free-message format_ in other words. (B) (C)

↳ It didn't have any _unified system of codes_ like SWIFT to name banks & describe transactions. Telex senders Have to describe every transaction in sentences which were then interpreted & executed by the receiver.

3. What resources / materials / equipments / tools did you use for this activity ?

1. Resources: cis-india.org / internet - governance / resources / security-standards - for - the - financial-technology

2.

3.

4.

5. Tools: Laptop / Desktop-PC
   Windows 10 (OS)

6. Chrome Web Browser

7. Stable Internet Connection

8.

4. What skills did you acquire ?

1. what are applications of Data Communication in Banking?

2. W5HH abt SWIFT system.

3. SWIFT vs <> Many other competitors

4. How SWIFT works? (Algo behind it)

5. What was Before SWIFT? How International Trade Takes Place?

6. Real world Transaction Scenario example Implementation via 2 Banks: → BOA
   → DBS Hong kong
   → Deutsche Bank

7. What are Vostro & Nostro Account?

8. Which Banks uses SWIFT?

5. Time taken to complete the activity ? _____02:00_____ (hours)

Signature of Student

WHICH BANKS USE SWIFT?

More than **10,000** financial institutions in more than 200 countries are members of the SWIFT network, making it the largest international payment network worldwide.

Below are the REAL WORLD SWIFT codes of multiple International Banks:-

DBS :- DHBKHKHH

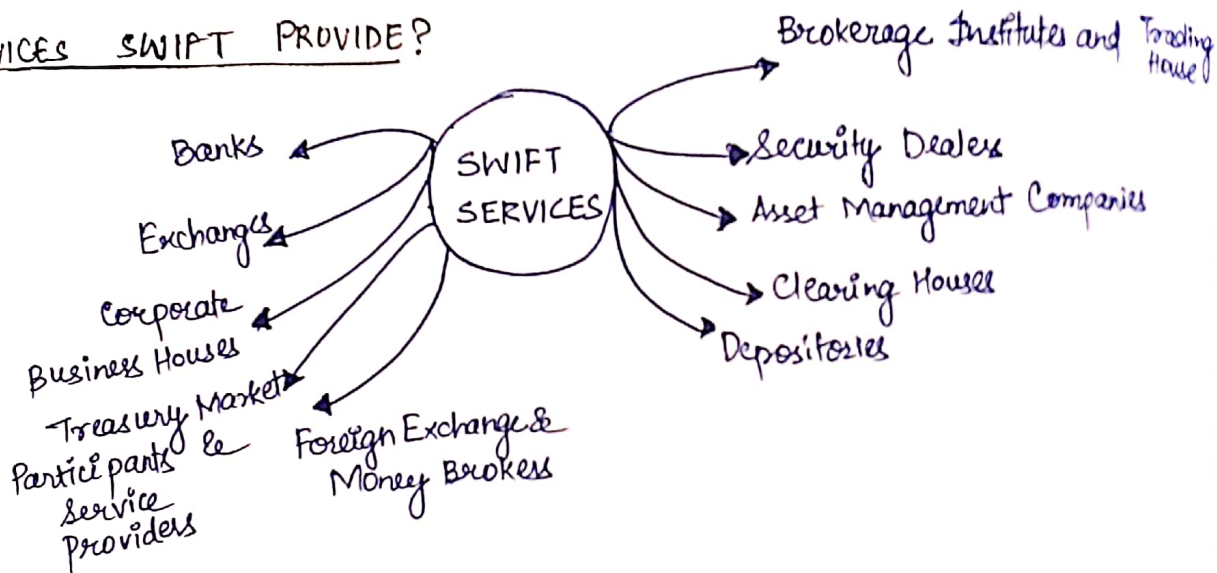HSBC :- HSBCHKHHHKH

Hang Seng Bank :- HASEHKHH

Standard Chartered :- SCBLHKHH

Bank of China :- BKCHHKHH

ICBC :- UBHK.HKHH

Bank of East Asia :- BEASHKHH

WHAT SERVICES SWIFT PROVIDE?

SWIFT SERVICES
- Banks
- Exchanges
- Corporate Business Houses
- Treasury Market Participants & Service Providers
- Foreign Exchange & Money Brokers
- Brokerage Institutes and Trading House
- Security Dealers
- Asset Management Companies
- Clearing Houses
- Depositories

HOW SWIFT WORKS?

→ It uses a system of codes to detail where a transfer is coming from; where it's going & how it will to get there. These strings of alphanumeric identifiers comprise an institution code, a country code, a location code & a branch code.

→ It's worth reiterating that because SWIFT doesn't actually send money. institutions that use the Network also Need Banking relationships to move funds.

→ Each financial institution will have a DEDICATED SWIFT Interface (a. computer-Based Terminal) on-premises. Users can log in to those terminals to manually enter messages. Messages can also be auto-generated by the Institution's computer system and passed on to the terminal.

⌐ The terminal that sends the SWIFT message to the regional processors in the sender's country. The terminals only connect with Processors through Leased line, dial-up or public data Network connections.

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↳ From There, the regional processor checks, stores & forwards the data to its operating center, which passes the message on the processor in the recipient's country. That processor delivers the message to the receiver's terminal & then sends confirmation.

↳ Officials at the respective financial institutions are supposed to audit these to prevent Fraud.

· WHAT CUSTOMER SHOULD AWARE ABOUT WHEN PERFORMING SWIFT TRANSACTIO

↳ A swift Transfer can be Time-Consuming sometimes for Example: 3 Days

↳ If you Have made the Transfer in two different currency than your bank might charge you with not so friendly exchange Rate & make a handsome profit for the same.

↳ Fee is often leived by Intermediary Banks also.

HOW SWIFT WORKS?

SWIFT NETWORK

OUTGOING TRANSACTION
1

TRANSACTION DELIVERED AS-IS (NO HIT OR FALSE POSITIVE)
1

5
TRANSACTION ABORT NOTIFICATION (TRUE HIT)

SENDING INSTITUTION

RECEIVING INSTITUTION

SERVICE USER

DECISION TO DELIVER (NO HIT / FALSE POSITIVE) OR ABORT TRANSACTION (TRUE HIT) 4 2 TRANSACTION IS COPIED

3
CASE MANAGEMENT OF ALERTS

SANCTIONS PORTAL   SCREENING ENGINE

MANAGED BY SWIFT