



NPCI/NFS/ OC No.43/2011-12

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To,

All member & Sub member banks of National Finance Switch (NFS)

Dear Sir/Madam

ATM transactions- Need for Upgradation of the Switch and associated Systems

As member banks are aware, the volume of transactions made on ATM channel has been growing rapidly requiring systems upgradation on a continuous basis.

While NPCI has carried out 2 upgradations in last two years, we observe that many member banks are still at the stage of evaluating need for upgradation.

It may be appreciated that only NPCI upgrading the system is not enough. Some of the frequent problems observed in the NFS system are

1. Queue build up in some of the member bank's switch during the periods of peak load(4-7 pm) leading to decline of transaction
2. During the peak load and more particularly on month end and quarter end, process load on bank's Core Banking Systems (CBS) results in declining of the large transactions contributing the technical declines.
3. The process enhancements in the form of LTS/TVS implementation are not implemented by majority of the banks effectively not enabling to reduce the chargeback cases.

Hence the following are recommended the best practises from NPCI

1. 24*7 monitoring and daily/weekly reporting of performance parameters of bank's switch and CBS system.
2. The utilization level of **60%** of critical components like CPU, RAM should be the point for starting the upgradation process. If the utilisation level is **70%** or above it should be treated as '**High Risk**'
3. It is observed that at some of the member bank's offsite ATM locations that are

working on VSAT link, the shared bandwidth that has been allocated for cluster of such locations is not sufficient resulting in timeout of transactions

4. The bandwidth utilisation of network links at all ATM locations should be analysed. The utilisation level of **60%** should be the point for starting the bandwidth upgradation process for the network links. If the utilisation level is **70%** or above it should be treated as **'High Risk'**
5. Continuous performance tuning of the bank's switch system by means of having multiple processes, multiple ports to connect to NFS systems. These changes can be discussed with NPCI technical teams time to time and can be implemented.
6. Taking corrective actions in cases where the ATMs have reported larger chargeback cases. Monthly reports are made available to banks
7. LTS/TVS implementation on the switch, if not done so far.
8. Software patches released by switch vendor should be tested in test environment before putting on live system

It should also not be out of place to mention that downtime taken by many Banks to switch over to Disaster Recovery (DR) system (during DR Drill) is very high. Similarly Bank's face many challenges for returning back to Primary (PR) System after the DR drill. While NPCI does not have any recommendation on downtime time frame, attempt should be made to bring the downtime progressively. If the PR & DR are on active-active mode, downtime theoretically is Zero.

Members are requested to examine the suggestions to help building NFS one of the most resilient and high volume ATM networks in the world.


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