

Case Study of Deployment of Breeze thin clients at Passenger Reservation System of India Railways

Customer Details:

CRIS & Indian Railways
All Over India

Brief on Unreserved Ticketing System

Reserved travel by Indian Railways is facilitated by the Passenger Reservation System (PRS). PRS provides reservation services to nearly 1.5 to 2.2 million passengers a day on over 2500 trains running throughout the country. The PRS Application CONCERT (Country-wide Network of Computerized Enhanced Reservation and Ticketing) , The new PRS (Web based) and Chart Printing is the world's largest online reservation application, developed and maintained by CRIS. The system currently operates from 5 Data centres. The server clusters are connected together by a core network that enables universal terminals across country, through which the travelling public can reserve a berth on any train, between any pair of station for any date and class.

Opportunity:

CRIS wanted to deploy thin client at PRS ticketing counters for PRS and New PRS along with deployment at chart printing centres across India which can sustained the different climatic conditions encounters in each region as well providing a long lasting hardware which can deliver optimum performance and secured environment.

Challenges:

- Highly secured & lower maintenance client required for users to enable lesser downtime in terms of hardware & software
- Should be able to sustain different climatic condition like very high & low temperatures, humid conditions and on top of that no air conditioning environment at most of the places
- Easy to Implement, Configuring & troubleshoot
- Data security (Highly confidential information which should not be allowed to taken away from any of the PRS counters)
- Low footprint to ensure minimum physical space required, since counters has limited space

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- Must be easily Manageable from remote to reduce the IT support calls and to reduce the Client down time
- Easy to Implement, Configuring & troubleshoot
- Ability to push patches etc. remotely

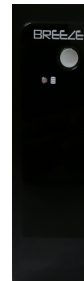
Requirements:

- CRIS PRS and New PRS application runs on emulation suite developed in C ++ and Browser.
- The client OS must be write protected with ability to download various PRS forms required at the time of login, to reduce network load and run the application faster.
- Fare Display connectivity thru serial port
- SCII library support to print Hindi on tickets
- Dot Matrix Printer used for ticket printing with both parallel and serial port support



Solution:

Deployed Breeze ECC LXR Thin Client



Configuration:

Operating System – Embedded Customised Linux with kernel 4.x.xx (as required by CRIS) within 2GB

Software – Emulation suite, ISCII Library, JRE 1.6 & 1.8, Latest Mozilla Firefox and other required dependencies / packages.

Hardware- Min 1.1Ghz Quad Core processor with burst frequency 2.4Ghz , 4 GB RAM, 32GB OP FLASH,USB ports, one Parallel printer Port, Two Serial Port etc.

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By deploying Breeze thin client following objectives were achieved in addition overcoming all the challenges mentioned above -

As the thin clients are without any moving part, the maintenance is very low compared to regular desktop

The OS & software's are stored in write protected Flash drive which ensured faster speed

With USB storage disabled, no unauthorized access to data

No fiddling with configuration etc.

Protection from viruses and malware attacks

Consumes ¼ power compared to a regular desktop, ensuring Huge savings on power bills

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