MV-90 xi Disaster Recovery: One Utility’s Solution
Introduction

Deregulated Market in Texas – Generation, Transmission and Distribution, Retail since January 2002

*Competitive Generation*

*Transmission & Distribution*

*Regulated*

*Competitive Customer Service*  
(Retail Electricity Provider)

A  
B  
C

Customer
Oncor reads about 9,000 IDR meters per month for Oncor billing, retail billing and market settlement. This amounts to about $1.5M per month revenue for Oncor and 5X that for retailers. We also read 1,000 for Oncor Load Research and 5,000 for ERCOT Load Research.

~ 630 miles

~ 390 miles
Introduction

Oncor has an in-house developed billing system that formats MV-90 interval data for billing through our CIS system. It resides on the production server with MV-90
I. Disaster Recovery Scenario

It is absolutely necessary to start with a scenario in order to develop a solution. There may be more than one scenario and more than one solution. Other systems will influence the solution(s)

We were given the scenario of the loss of a data center. This was a ‘hardware only’ scenario. Personnel should be considered also.
I. Disaster Recovery Scenario

Other examples – (from you)
Our CIS system bills about 3.5M customers per month. We decided it was more important to get public safety systems back online before getting billing back online. The plan is to have the billing system back online within 7 days.

The solution should drive the budget. We were given a 0$ budget.
II. Implementation

We ordered a second identical server and installed it in a data center. We installed Pervasive on the server and configured it identically to the production server.

Both servers are backed up nightly.

Backups for each server are stored at the other data center.
II. Implementation

In the event of a disaster we restore the latest backup to the DR server and point the MV-90 and XIComm workstations to the DR server. We will lose a day’s data but can re-interrogate the recorders.

Pointing the workstations to the DR server means changing a drive letter batch file and the pervasive DSN’s. This can be done coincident with the restore.
II. Implementation

Itron and Pervasive allow (without charge) a second installation of their software for backup purposes. It cannot be ‘live’ or used in production. It can be used for testing.

Microsoft does not allow a second installation of operating system software.
III. Lessons Learned and Recommendations

A complete disaster recovery solution would include personnel evaluation. The people are the Company, they can rebuild the system if necessary so they must be protected.

A pandemic, for example, could affect our ability to bill because we are all in a small area of one floor.
III. Lessons Learned and Recommendations

Periodic and regular testing of the DR system and procedures is crucial. We conduct a DR exercise every 6 months and learn something new almost every time. Examples – Where tapes are kept, new DR team members, system configuration. Regular testing and review will increase your confidence that the system will work as designed.