

The image shows the T. Rowe Price logo in white, three-dimensional lettering mounted on a dark, textured building facade. The background of the slide features a large window looking out onto a green lawn and trees, with the silhouettes of two people in the foreground.

T. Rowe Price

Implementing an Internal Work Area Recovery Site

Lessons learned from start to finish and beyond

Work Area Recovery - Definition

Work Area Recovery

People/process recovery, only

No recovery of the underlying application technology infrastructure

Employees in seats with PC's and phones to connect to the application servers in our Technology Center (Data Center)

We have a disaster recovery plan and a separate back-up data center for the loss of our Technology Center

People are separate from Technology

Either a people recovery problem or a technology recovery problem

Analysis to plan for either one was not complicated by the presence of the other

If you have a technology center co-located with a main employee work site, you need to make sure you separate the two issues in your analysis

Previous Recovery Strategy

Internal Relocation/Displacement

Move critical staff from one site into non-critical staff locations at another site
Utilized PC equipped training rooms as well.

Limitations of this strategy

Limits testing capabilities (Scope, Timing, Depth, & Frequency)

Re-stacks within recovery space add continual risk and considerable additional internal costs

Displacement creates disruptions for displaced business functions (2 disasters)

Limits ability to respond to all scenarios – i.e., loss of entire OM campus

Used limitations to make the case for relocation site

Requirements at 30,000 ft

Scenario/Building	# Employees recovered					
	W/in 4 Hours	Day 1-3	Day 4-5	Week 2	Week 3	Week 4
Building 1	40	82	231	298	338	424
Building 2	29	58	117	126	148	227
Building 3	78	98	173	217	238	262
Building 4	38	100	163	186	244	281
Scenario 1. Total Campus	185	338	684	827	968	1194
Scenario 2. Total Hdqtrs	249	308	453	543	659	774

Requirements at 30,000 ft

Recovery Needs

Immediate business continuity needs for all sites in headquarter region

Prolonged recovery support for our remaining large US sites (Day 4 and beyond)

1 Hr RTO for 1 mission critical process (covering three business units)

4 Hr RTO for nearly all other processes

Seat Definitions

All Day 1-3 seats are Hot Seats (desk, chair, wiring, PC, phone)

1 HR RTO Hot Seats would be dedicated to business unit

4 HR and Day 1-3 RTO Hot Seats = shared between business units and scenarios

All Day 4-5 Seats

- Warm Seats (desk, chair, wiring, no technology)
- Shared between business units and scenarios

Internal vs. External

Vendor Pros/Cons

Do not have to maintain your own building

- Security/Facilities
- Infrastructure
- Balance Sheet

Less expensive overall

Less functional due to lack of control and other limitations

Not able to truly meet our RTO's with just shared solution.

Internal Owned Pros/Cons

Have it your way – “Sorry, Burger King”

- 1 Hour RTO for mission critical business units
- Right location
- Total Control

At least 2.5 times vendor cost

Lease vs. Buy

Many factors: very few were closely related to BC

Balance sheet

Income statement

Corporate culture

Not a battle I cared about except:

Any decision should reflect a LONG TERM commitment to the strategy

Should not involve thoughts about using the site for anything else

Decision: 10 year lease with optional 5 year extension

Location

Pure BC decision, but more complicated than you think

Distance: How far is too far or too close? A: It depends

- Risk factor vs. production sites
- BC objectives, (immediate or worst case use, RTO's, etc.)
- Appropriate available locations (space, infrastructure, real estate partners)
- Corporate culture

Transportation

Multiple roads, adequate parking, public transportation

Expandable site

Food/Hotels

And it's never just a pure BC decision

Politics: Your partners have to like the solution

- Technology
- Facilities/Security/Real Estate

More Politics: Your important clients have to like the solution

- Global Trading
- Executive Sponsor

Decision: Linthicum, MD

- 12 miles from DT Headquarters
- 25 miles from suburban campus
- Accessible from several major highways and Light Rail.
- Next to BWI Airport – hotels, food, easy access for recovery of remote sites

Maryland Business Continuity Recovery Site - MBCRS

Site: Linthicum, MD:

385 hot seats (166 dedicated to Investments - 1 hour Recovery Time Objective)

315 warm seats (Ready by Day 4)

Support for 100 wireless users

EOC, 10 offices, copiers/printers/faxes, mail room, pantry, 14 meeting rooms

Technology Rooms

- NDC
- PC Build Out Rooms

Full site on the TRP WAN sonnet ring

Back-up generators

UPS for NDC and dedicated seats

Recovery Seat: 30" desk, phone, PC, monitor (flat), chair, pedestal

Pictures - Outside



Pictures – Raw inside



Site Design

How much space do you need?

T. Rowe: 700 seats required 55,000 sq feet. Could be done in a smaller space, but:

- Regulations dictate occupancy limits and how much bathroom space
- Need offices, meeting rooms, copiers, printers, storage space.
- Go with flexible design, you can add more seats for a long term outage

Should it look like a corporate site?

Corp standard = higher \$'s

Not the “Taj Mahal”.

- Waste of money
- Increase push to use for production

But employees must not feel like it's punishment to be sent there

“Goldilocks approach” or the Frank Lloyd Wright Principle

- Basic but appealing
- Form follows function – i.e., It's for emergencies, only.
- Doesn't look like where they normally work

Pictures - Reception



Pictures – Recovery Seat



Pictures –Mechanicals



Site Design - continued

What to put in there?

Keep your requirements in focus or wish list requests will skyrocket

- no one can accuse you of empire building/overspending
- Use testing to justify future upgrades

Infrastructure - (Wiring, electrical, power, networking, environmental)

- Advice: Don't cut corners on quality, save money on the look
- Compatible with production infrastructure, but flexible & easily scaleable

Common space? (offices, meeting rooms, mail room, pantry)

- Senior managers expect offices
- More reasons than ever for needing meeting rooms
- EOC, Mail, Reception – reduces confusion
- Pantry: Employees leaving to get lunch during a recovery?

You can't please all of the people all of the time... BUT Big Dogs Eat First

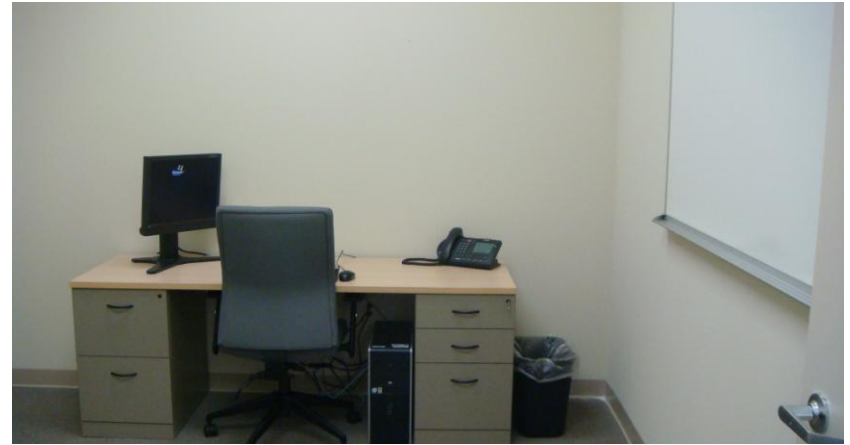
- Mission critical business units should be included in design
- If they don't like it they won't use it and If they don't use it you don't have a job

Pictures – Common Space

Mail Center



Office



Printer/Copier



Storage

Pictures - Pantry



Site Design - continued

Location of hot seats & warm seats

Review requirements of each scenario best design to fit all needs

Business units should grow contiguously as much as possible

Common areas

Reception, Mail, Pantry: should be in central location

Bathrooms, Offices, Meeting, Printer/copier: dispersed

Double check the details

Will save you headaches and your reputation

Ex: call center phones

Internal signage

“Hotel Floor” model to direct employees to their seat

What to call the pantry?



Pictures – Dedicated Hot Seats



Pictures – Shared Hot Seats



Site Build Out

Atypical site = atypical implementation

Who's in charge? You, RE Project Mgr, Construction Mgr? That Depends...

- Are you a control freak?
- Is the REPM or CM any good?
- If in doubt, get your executive sponsor to put you in charge

Get ready for more emails and phone calls than you've ever dreamed possible

- Non-standard fittings and infrastructure
- Others will think they know what's best

Document, document, document

Questions kept getting revisited: "I know we answered this before"

What decisions should be run through you

You will not be able to remember it all

How long to implementation?

12 months from conception to finish

4-5 months for actual construction

Atypical site must have typical support

Because BC staff is usually small and use of site is infrequent, everyone must pitch in to keep the site ready for use.

- Technology
- Facilities
- Business Unit Coordinators

All routine maintenance and technical support of the building must be integrated into normal production processes.

Site Implementation – Go Live

Corporate Announcement

Documentation

Seating charts for each scenario – Huge jig-saw puzzle

Invocation check list, phone listing, testing schedule

FYI (usage, travel directions, access, internal navigation, technology, facility, help)

Note: Have it but don't expect everyone to read it

Signage

Dedicated seats – DO NOT USE

Peripherals

Storage/Supplies

Key Card Access

24/7 to support staff (Tech, Facilities) and all crisis management members

Testers, Recovery staff at TOE

Security –protect what's there

When not active

Essentially only protecting assets, not people

Remote monitoring and sensors are sufficient

Real estate management does manned perimeter check

When activated

Tests – guard present at reception for duration of test

- Testers feel safe
- Know they are at correct site
- Can assist with test logistics

Invocation – guard present 24/7

- Workers coming and going all day
- Internal/external elements less likely to “take advantage” of chaos of recovery

Testing

Walk before you run

Builds confidence in the site

Find show stoppers before you have a big exercise

Too many small tests are not good either

Too much preparation

A lot of additional support costs

What do you mean there's... ANTS?

Advice:

Realize that you are far better then you were

Find an initial balance and build up to larger more realistic exercises

Testing

Use testing to build awareness & goodwill for site

Make it easy for the testers

Internal Signage

Documentation – FYI, Seating charts, etc.

Be prepared for tester feedback: 80/20 rule

20% intelligent and worthy of consideration

80% unimportant, minor, petty, or moronic

Actually you can reduce the 80% by properly managing expectations

Site Design – Revisited

You think you got all the requirements, right?

Wrong: You've got all the requirements for your old strategy

Realize now you won't get it 100% right

Never done this type of building before

Thousands of considerations

- Skylight shades
- Noise reduction

New requirements will emerge because of the new strategy

Voice recording

Special printing (Blue sheets, Checks printing)

CD R/W drives

Color scanners

Site Design – Revisited

Discover during implementation, some during testing

Q: “Why wasn’t it in your requirements?”

A: “Making due or didn’t realize until now”

Ex: Fed Wire, Scanner, Macs, Check Printers, Locking storage

Back-up PC’s at the site to replace malfunctioning dedicated workstations

One-offs need to be justified

Should do triple duty. aka: three-offs

Ex: Scanner for Trading, Finance, Marketing

Ex: Macs for Client Reporting, Doc Publishing, Corp Marketing

Ex: Check printing for Retail, Retirement, Finance

If you build it they will come

Bad news: Some will want to use it for production

“It’s just sitting there, right?”

Educate: They don’t understand BC and the true purpose

CYA: Head these requests off at the pass, i.e., escalate

Good News: Draw a line in the sand

Early, often, and loud. “No use of this site for regular production!”

Brand the site with name to reflect its purpose

- MD Business Continuity Recovery Site, instead of “Linthicum site” or “BWI site”

Make purpose clear in all documentation

Do a road show for business unit heads to explain and set expectations

If you build it they will come

Bad news: Eventually you may have to give in

Good fit for the site

Must not interfere with the BC readiness (i.e., no use of hot seats)

Examples:

- PC build outs
- Furniture storage
- People skills training class

Good News: You'll look like a hero

Taking one for the team

Mitigates those who feel site a waste of time and money

Other Issues

Prepare to Educate

The “How much does it cost for something we’ll never use?” question

FYI document and add site info into business unit continuity plans

Internal road show with pictures

Add to Facilities on-line site information

Give lots of tours to stakeholders: Managers and Executive Admins

Clients should understand it’s internal not through vendor

- Information sheet
- Detailed specifics included in your recovery program statements

What to expect over time

Higher expectations for your program

Need to get it right.. No excuses

Floor plan will change

Re-orgs and re-stacks ultimately reflect at the site

Requirements change (traders need 2 CPU's)

More extensive testing

Fewer but larger

More comprehensive

Surprise

Continued pressure to use for alternate purposes

Never goes away

Increases during lean times

What more to expect

Signage is key! Without it

Testers and visitors will use any seat they want

No one will be able to find the bathroom

Caution tape for dedicated seating

Facilities support

Make sure maintenance knows about tests – A/C flush, roof walkers

Keep it clean, especially if you have food

Keeping documentation up to date

Seating charts & builds

Floor plan changes

Driving directions

Chargeback scheme

Invocations

October 2008: Contingency

Market conditions spurred a huge increase in service center calls

Able to add additional call reps to day time shift by moving back-office processing to recovery site

April 28th, 2009: Water main break near Hdqtrs

Water pressure declining at our high-rise headquarters

7:30 am: potential evacuation of the building required

Crisis Management Team invoked without hesitation

Surprise test in December (Trading), announced test in March (whole building)

September 2011: Baltimore Grand Prix

Headquarters is on the race course

Barriers along course set up in advance

Likely to invoke planned use of site for at least 3 days

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