



# Data Center Down – This is a Disaster



iTINUM

A Presentation by Richard Dolewski

# Definition of a Disaster



**“A sudden, unplanned event that causes great damage or loss to an organization”**

**The time factor determines whether an interruption in service is an inconvenience or a disaster. The time factor varies from organization to organization.**



# What is Disaster Recovery?



Reaction to a sudden, unplanned event that enables an organization to continue critical business functions.

Planning must address continuation of business operations.”

# What is a Disaster ?



**ANYTHING!**

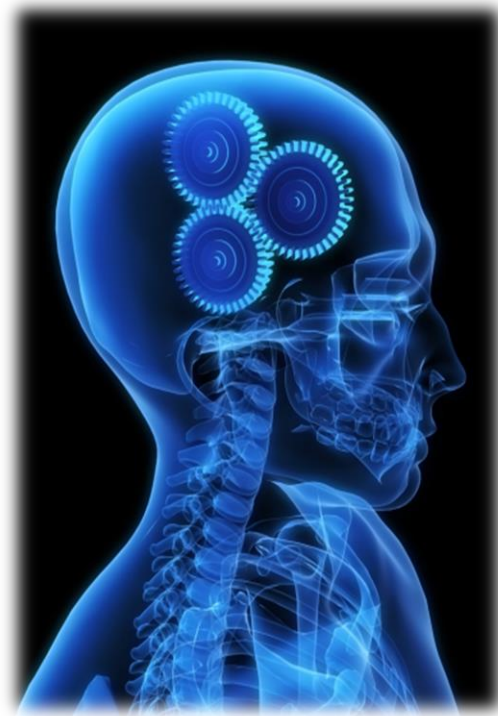
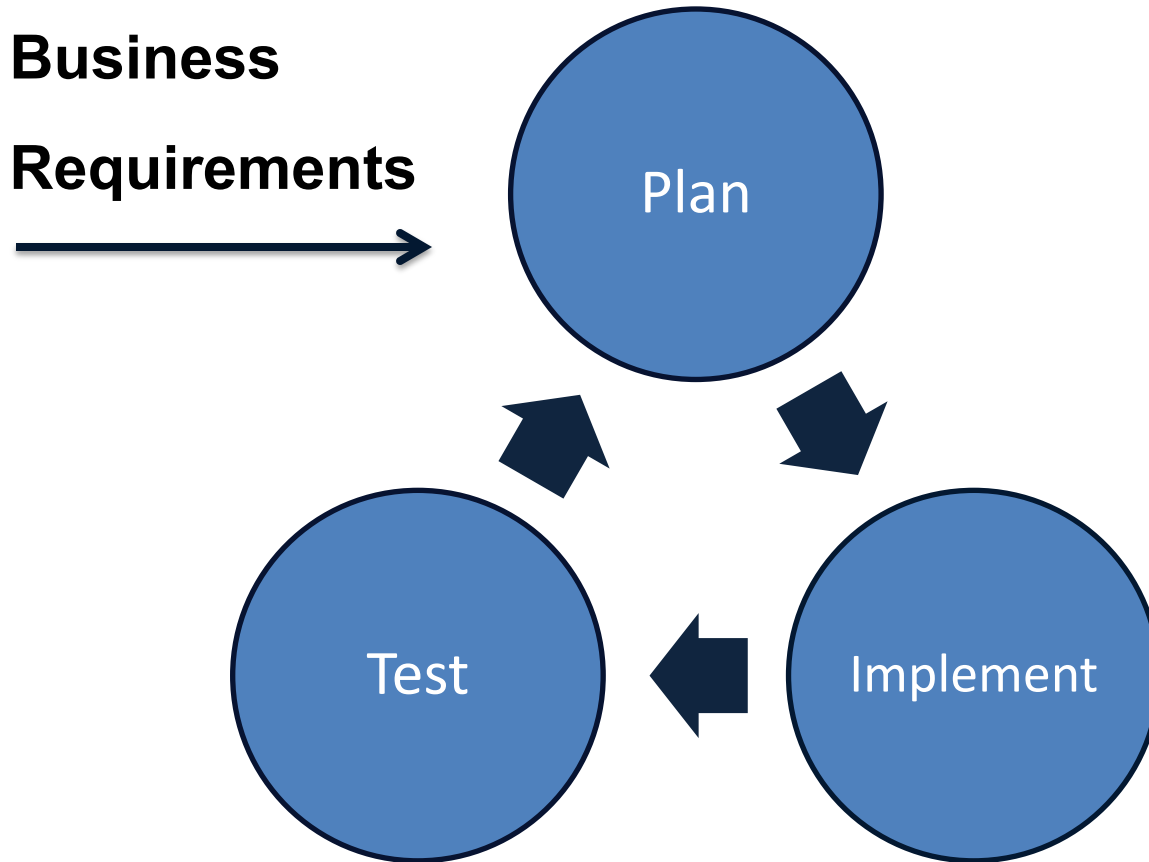
**Any outage that stops your  
business from functioning  
and that cannot be corrected  
within an acceptable amount  
of time.**



**Disasters Happen....**

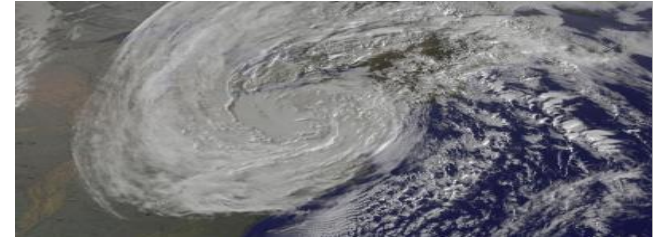
**60 sec DR VIDEO**

# DR Planning is an Ongoing Process



**...to be prepared, you must regularly go through the cycle**

# Super Storm Sandy

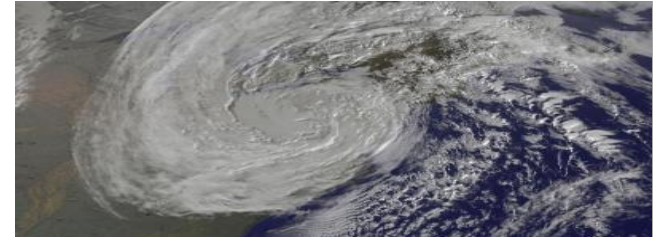


+ Round 1: Also called Franken-storm, Mega-storm 2012, Storm-ocolypse, or the “100-year storm”

+ Round 2: Thanks to the collision with cold air flow  
Massive snowstorm for inland states



# Super Storm Sandy



- + **\$25,000,000,000** lost business activity
- + **Only 8%** of business and residential customers **had power** between October 28 and November 12
- + **820 miles** in size, measured by diameter of tropical storm-force
- + **15 total number of days in Duration** - NYC's system of gasoline rationing was in place. **35%+ Cell towers down**



# Case Disaster Declarations



## Two real-life events

The companies are both in the manufacturing industry with the corporate data center in NY supporting several sales offices, distribution facilities and manufacturing plants scattered throughout the US.

We will refer to these as **Smith Corporation** and the **Zed Company**.

# System Profile

- \$ 2 Billion Manufacturing Company
- Coastal (NJ)
- Test DR annually with 6 IT staff
- Trained in recovery of the system
- Tapes sent offsite daily

**The Smith Corp.**

# The Smith Corp. - Disaster

4 Hours



- + Water damage in building from storm
- + Power isn't stable
- + Water under computer room floor
- + Severe power failure - 7PM
- + Site expected to be down for the remainder of the week



**Disaster declared - 11PM**

# The Smith Corp. - Disaster

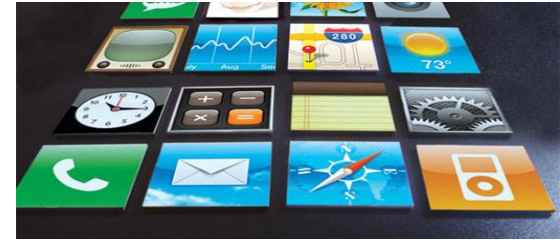
5 Hours



- + Distance between Carlstadt (NJ) – DR Provider and Coastal (NJ) Smith Corp. = 19 miles
- + Alternate hot site available - in Philadelphia, PA = 118 miles
- + Pack vehicle : DVD's, procedures, laptops, chargers etc.
- + Ready to get into traffic to start the drive, iPhone map issues



# The Smith Corp. - Startup Issues



- Staff unable to recall tapes en-route to facility
- Offsite Storage Vendor will not accept tape recall requests over the phone

**“You must sign on to Web site to recall tape media”**



- No App for retrieving your tapes
- Provider will not deliver tapes to PA
- Emergency service delays of 6 hours +

**Cannot depart for hot site until tapes arrive**

# The Smith Corp. - Startup Issues

19 Hours



+ Authorization Completed with hot site

+ Disaster declaration fee of \$7500

**What's this?**



+ Daily usage fees **What's this?**

+ Plenty of things to ponder on drive -  
avoid road closures - **7 hours Drive Time**

+ ATM's down - Got any Cash ?

# Smith Corp - Startup Issues



**20 Hours into Disaster**

- + Restoration for Tier 1 Server recovery start
- + System restores expected to take 16 hours
- + IT sends out a notice to the Business: “ Expect systems to be up in 18 hours for processing “

# Smith Corp - System Ready



+ Testers have given the  
green light

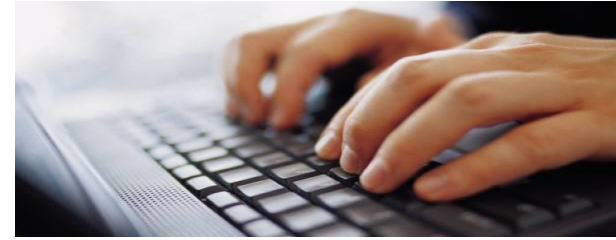
+ We are back in business....

**35 Hours**





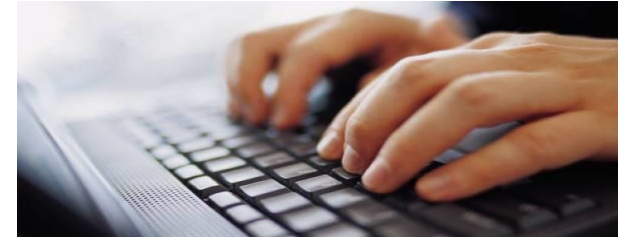
# Smith Corp - Report Card



- + 19 Miles Distance between DR provider & Primary Data Center
- + Consider where your hot site is located
- + Know your offsite vendor limits
- + Keep hot site in sync with DC hardware changes



# Smith Corp - Report Card



- Does your Business Have a Say ?



+ Management shocked that the IT folks lost all orders 24 hour RPO. Who agreed to this?

+ System was not available for 35 hrs. Who agreed to this?

- Do the Bean Counters know what IT can deliver in a disaster ?



## System Profile

- Recently implemented a High Availability solution for critical Tier 1 applications
- Tier 2 systems were Tape based recovery
- Utilized HA Data Center for Offline Backups  
Business thrilled with no planned outages
- Testing shows failover in 45 min, tested quarterly
- No generator deemed necessary at alternate site

## The ZED Company



# The ZED Company - The Disaster

**BREAKING**  
NEWS

## Generator room in Basement



# The ZED Company - Startup Issues

- + Source and target systems - 12 miles apart
- + Primary site generator under water
- + Both facilities are down - Wide spread power outage
- + Hoping Power comes up soon – **At mercy of County**



# The ZED Company - The Disaster

**BREAKING**  
NEWS

Largest Power Outage in Recent History



# The ZED Company - Startup Issues



- + Management very uptight...Name calling .....
- + Every action/or indecision is now being questioned
- + Pressure is probably at a peak as Plant locations are asking when ??? We are loosing \$\$\$\$!



# The ZED Company - Startup Issues



- + Power finally stable and comes up **3 days later at DR Site**
- + **NO Shipping, Manufacturing continues blind , NO new SALES**



- + Warehouse/Plants schedule extra shifts to cover backup nationally



# The ZED Company

Less Than a  
Week Later

## Storm #2

Eastern seaboard facing second weather event in a week.

A Nor'easter roars up the coast, dropping 12 inches of snow on already ravaged NY and NJ. **Power out for 18 hours.**



# The ZED Company - Report Card



+ Both DC and DR site  
within 12 miles



+ Senior management pressure



+ How do they get back to  
normal operations once power  
comes up comes back up?

**Is this the complete  
answer ?**



**Generator at DR Site  
(now in budget)**

# What About Your Email?



- + Email has become mission critical
- + Email represents the way you communicate with customers, partners and employees
- + In a disaster situation, this may be a key component of your communications strategy
- + Is email listed as a critical application for your organization

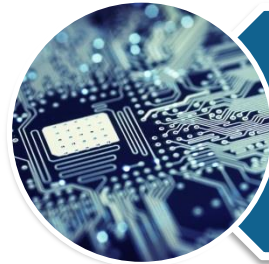
**Ready for the  
worst case scenario?**

**Can You See Your  
Recovery Site From  
Your Primary Data  
Center?**

# Super Storm Sandy: Wake – Up Call



**IT staff capabilities and  
availability**



**Modernization of current  
backup and recovery  
solution**



**Data center, offsite  
storage, and hot site in  
same FEMA region**

# Disasters Effect DR Supply Chain



## Considerations:

- **Is your regional Hot site solution provider experiencing same disaster?**
- **Understand SLA – Commitment by Suppliers**
- **Subscription Ratios**
- **Can your staff travel in a disaster?**



# Regional Disaster Effects of Staff



**Until the basic personal needs are met**

- **Family comes first. Always!!**
- **Staff members will not focus on the Enterprise recovery**
- **Staff members may choose not to be available**



# Re-assess Your DR Solution



Traditional DR planning has never considered:

- The **Availability** of their recovery solution
- The **Location** of where Offsite Media is stored
- Businesses must implement a geographic diverse solution
- A need to enforce FEMA region separation away from their primary facility



# Conventional Disaster Recovery



**Conventional thinking is Monolithic**

**DR is not keeping up with the speed and requirements of your Business**

**Your Business is already conducting Business in the Cloud**

**Private Cloud – Embrace the cloud for meeting your Resiliency Needs**



Can you afford  
**NOT** to modernize  
your recovery  
solution?



# Why Move to the Cloud for DR?



- **Meet business RPO/RTO needs quickly and efficiently**
- **Access to deeper roster of experts**
- **Access to latest hardware**
- **Access to latest technologies**
- **Capex saving**
- **Flexibility of term**
- **Transfer risk to MSP (under SLA)**

# Cloud Site Resiliency View

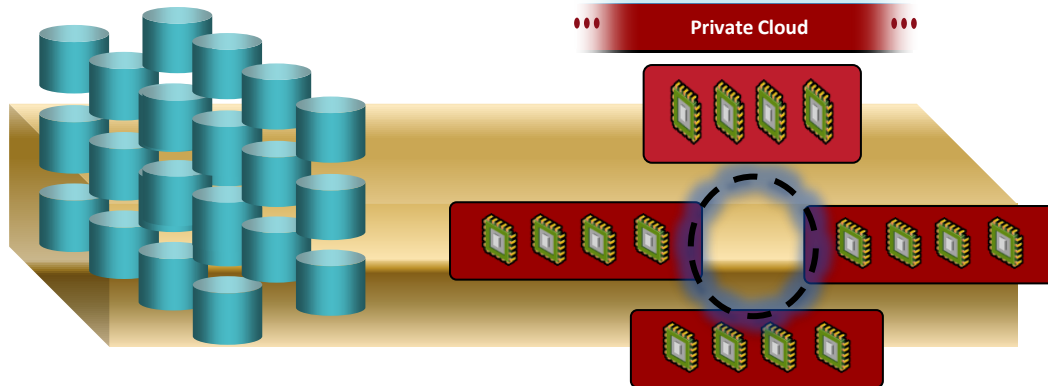
Build for Application level resiliency and  
Disaster Recovery in the Private Cloud

ORACLE  
JD EDWARDS WORLD

IBM

LAWSON™  
SERVICE PARTNER

SAP

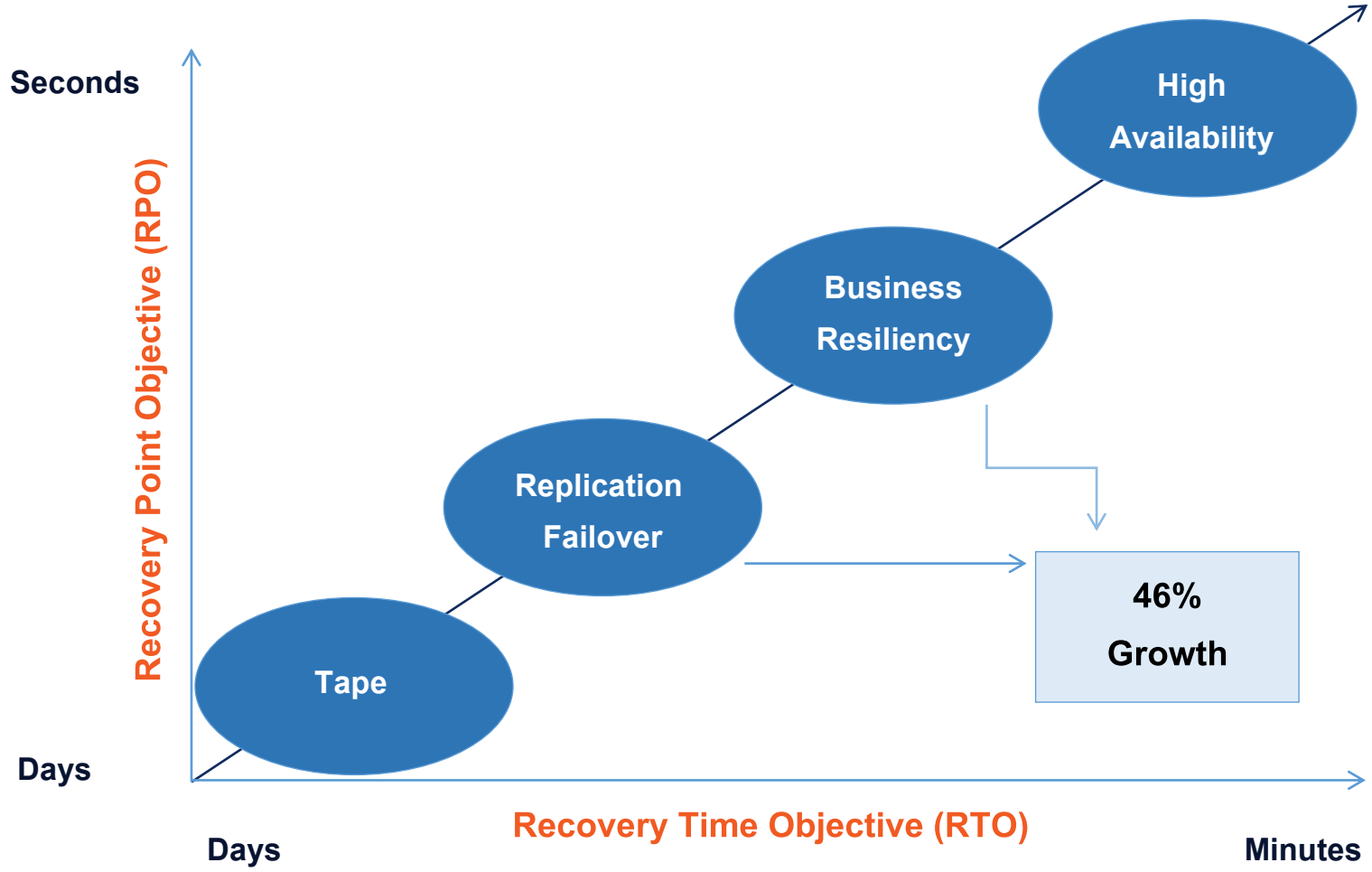


# Importance of Business Resiliency

- Organizations rely on technology to run their businesses.
- Downtime is a business issue, not just a technology issue.



# Budget Spend 2014



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**M**  $\frac{A}{+}$  *t* (H)

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**IT**

is

***Built*** Differently

***Consumed*** Differently

***Run*** Differently

***Governed*** Differently

**IT**

***Organizations***

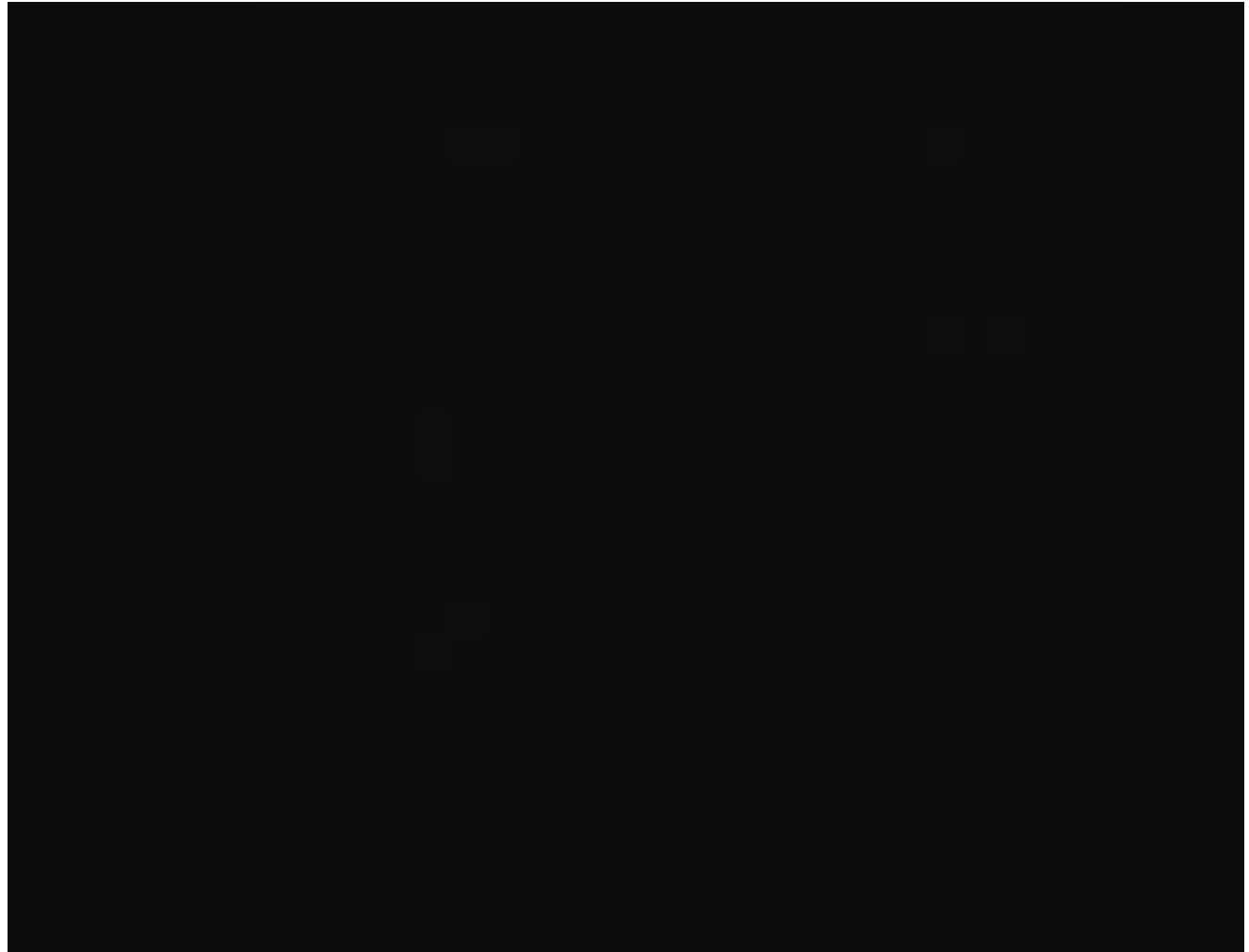
**MUST Evolve**



**Will You Be  
Prepared?**



**When it  
rains...**



IBM Commercial

**The end, Thank You!**

**Presenter:**

**Richard Dolewski**

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