

Keep Calm and Virtualize On

Communication, Coordination, and Recovery During a Crisis

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Abstract

Successful crisis response is about more than fixing a bug—it's about leading through uncertainty. Join this session to learn how to guide clients and teams through major disruptions with empathy, accuracy, and structure. Topics include establishing shared understanding, documenting clearly, managing escalation paths, and driving coordinated recovery.

Special Thanks & Acknowledgements...

- Bill “Bit” Bitner (Ret.) – Original Author, z/VM Performance Extraordinaire and Customer Focus/Client Care Rep
- Tim “TIMR” Reynolds (Ret.) – My former mentor, z/VM CP Level 2 Lead
- All of you for sticking with us!

About Me

- 5 year anniversary with IBM this Sunday, June 15th.
 - 1 year as an intern working on IBM Wave (now Log-On Wave)
 - The past 4 years in z/VM CP Level 2 Support & Development
- Graduated from SUNY Buffalo, BS in CS
 - Found my niche! Lower-level systems programming... (C programming on x86 Linux)
- Didn't know squat about IBM Z or Mainframes until Fall 2019
 - Turns out IBM was still relevant. Who knew!
 - IBM sponsored a table at UB's hackathon
 - I got the opportunity to network with two z/OS developers who encouraged me to apply.
 - IBM was one of the few companies to not cancel student internships during the COVID-19 Pandemic.
 - The rest is history...

Agenda

- Brief Look at IBM's transformed formal Critical Situation process.

- Avoiding a critical situation

- Impact of critical situations

- Dealing with a critical situation
 - Problem Definition
 - Communication
 - Analysis
 - Other hints and Tips

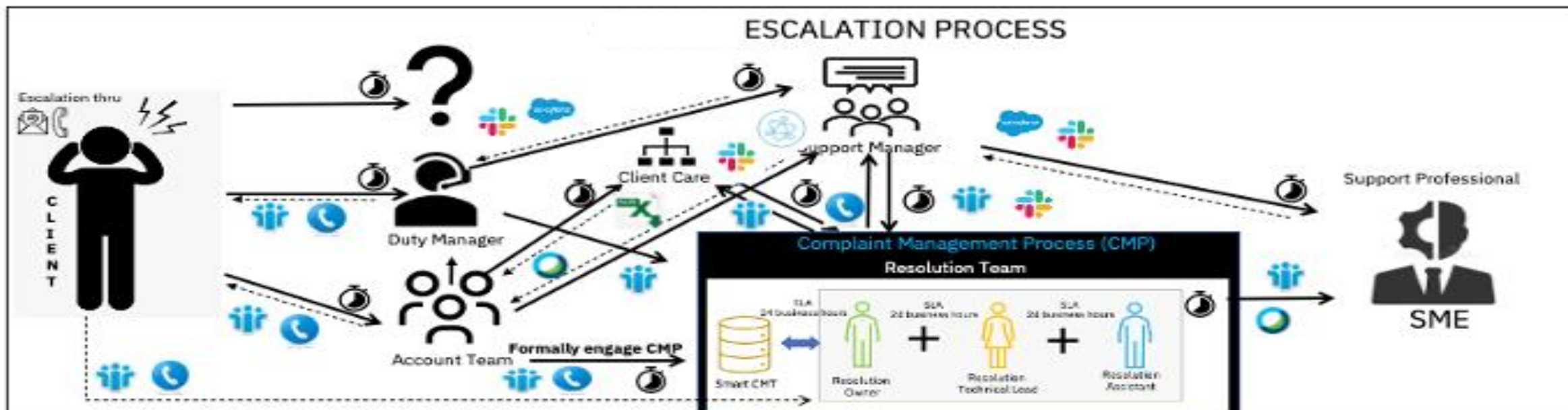
Previous IBM Complaint Process

- Complaint Management Process (CMP)
 - Not a bypass to the normal service process
 - Invoked when the NORMAL business processes and escalations have been applied and failed to resolve the issue or have not progressed quickly enough.

- Registered complaints, based on business impact and/or source of the problem
 - Proactive: opportunity exists to resolve an issue before the client formally complains
 - Complaint: on behalf of a client or business partner who is dissatisfied.

- A complaint can be flagged as “Critical” (CritSit) and receive IBM executive focus when either of the following is true:
 - The issue has caused the client’s business operations to be seriously impacted.
 - IBM has determined that failure to resolve the issue will cause irreparable damage to the relationship between IBM and the client.

Previous Escalation Process

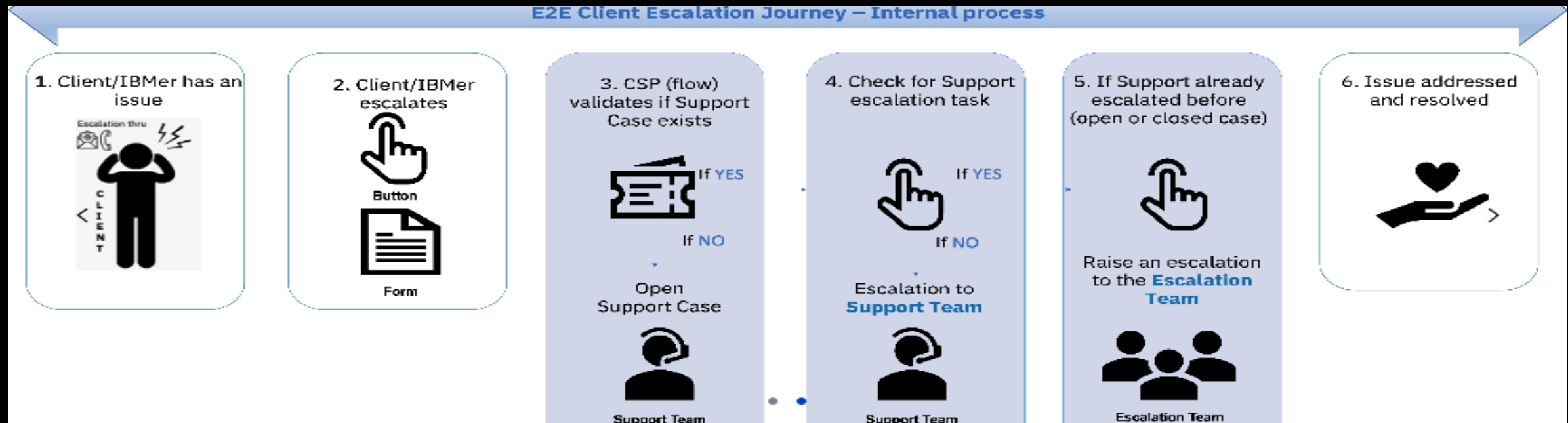


Previous client escalations were being managed by multiple teams, using multiple tools with multiple steps, resulting in:

1. Duplication of efforts
2. Delay in resolution
3. Anxiety within IBM and at the client end

New & Improved* IBM Complaint Process

- Escalation Management Process (EMP)
 - As before, invoked if the client is still dissatisfied after we have attempted a business-as-usual resolution approach.
- The description is really the same as the CMP, but the workflows have been simplified to help us help you better and faster.



What really changed?

IBM reinvented the Complaint Management Process to become more client-centric, capitalize on cognitive capabilities, and make more efficient use of our resources in resolving complaints.

With the use of CSP (Cognitive Support Platform) as a tool to track both Technical and Non-Technical Client issues and Complaints by:

- Managing all technical complaints in Salesforce CSP
- Using intelligent workflows, automation and data mining
- Integrating non-technical complaint cases

Avoiding Crisis Situations

- Build your Proof of Concept as if you will live with it forever
- Do not skimp on System Review Process
- Change management system
- Test like your job depends on it - Performance and Quality Engineering
- Have a strategy for keeping software and hardware current
- Subscribe to z/VM Red Alert page <http://www.vm.ibm.com/service/redalert/index.html>
- Find friends – local user groups, mailing lists, conferences

The Impact of Critical Situations

“We never knew we would have to land on the Hudson. But we knew how to land an airplane.”

– Chelsey “Sully” Sullenberger, Captain, US Airways Flight 1549



Problem Definition

Good support starts with a clear, shared definition of what's wrong and why it matters.

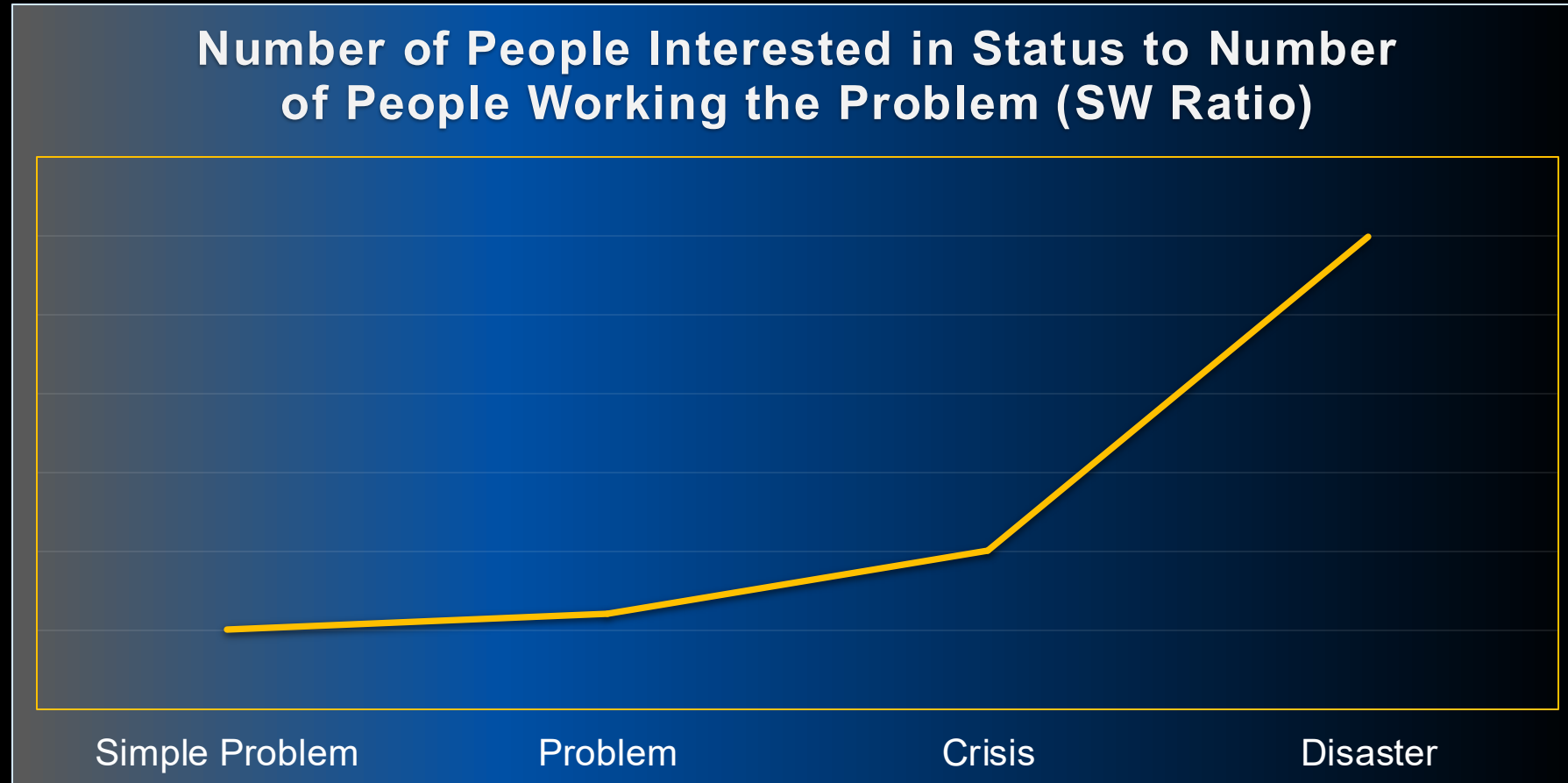
“A problem well stated is a problem half solved” – Charles Kettering (American inventor, engineer, businessman, and holder of 186 patents)



Problem Definition

- Avoid the urge to rush into a solution.
 - You need to understand *what's really wrong*—not just what appears wrong.
- What is the business impact?
 - Client's impact & IBM's impact
- Is there more than one problem?
- When did it go wrong?
 - Did it go wrong all at once, or gradually?
- Is it an “expectations” mismatch?
 - How were the expectations set?
- What constitutes correct?
 - Criteria for resolution or “Go home” criteria
- Prioritization / Triage
 - Getting to root cause vs. stabilizing the system
- Getting agreement from all parties on the problem

Stages of Communication



What is the Objective of Communication?

- To gather information
- To share information
- Reduce confusion
- Make progress on a joint effort
- Ensure agreement
- Let people know you're actively working the problem

Communication Challenges

- No one knows who to include
 - or who was missing from list

- Assumptions made about what people already know

- Too much information all at once

- Not sure which communication vehicle(s) to use

- Fear of saying the wrong thing

Ways to Improve Communication

- Identify Focal Points
 - Customer & IBM

- Who's who – document (see situation for dummies)

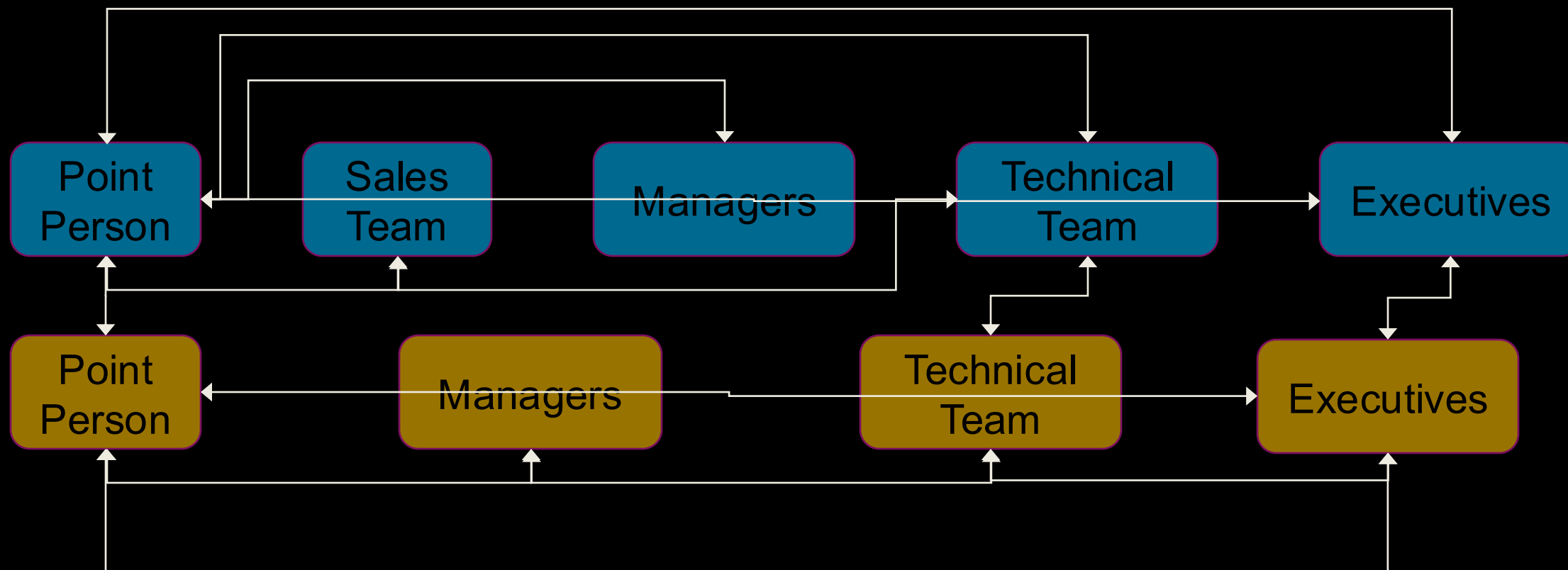
- Distribution Lists
 - IBM vs. Client vs. ISV vs. Everyone
 - Technical vs. Management vs. Executive
 - This will need to be dynamic

- Email, instant messaging, data repositories, slack, IBM Box

- Terminology
 - IBM & Client – acronyms, naming conventions
 - Language differences

Communication Combinations

IBM Customer

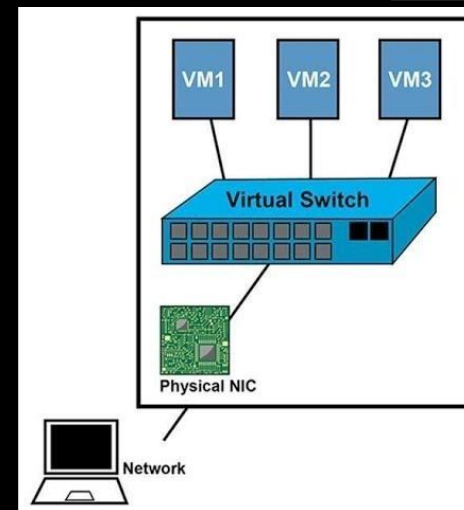
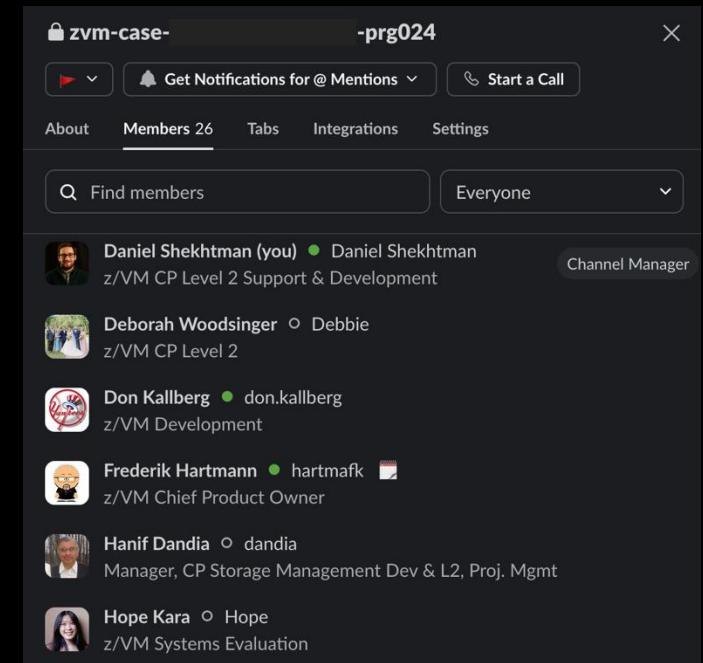


Tools/Techniques to Improve Communication

- Email
 - Use meaningful “Subject”
 - Include customer name, case #, or some distinguishing handle as people may have more than one problem at a time
 - “Respond by ...”
 - “*IBM Confidential”
 - “z/VM ABEND” vs. “[Case TS1234567] 4/15/2025 z/VM HTT001 ABEND”

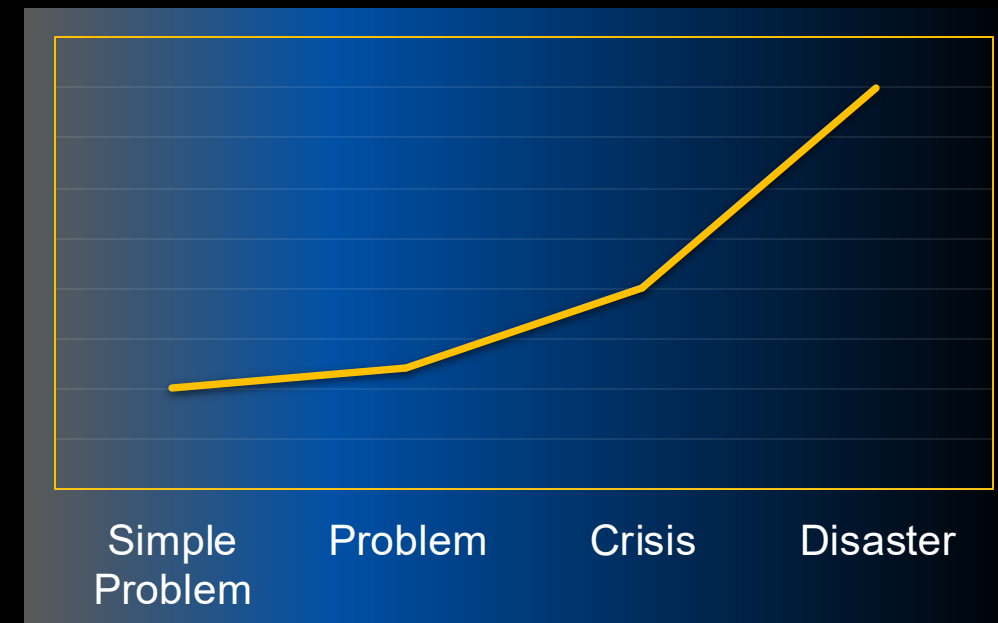
- A Shared Blog/Group Chats
 - Multiple authors, running discussion
 - IBM Box, Slack, Teams, etc.

- Whiteboard and/or Digital Diagrams, Charts, etc.
 - A lot easier to understand how things are connected with a picture.



Address Communication Challenges

- Some problems tend to span multiple areas:
 - HW
 - Processor
 - Storage
 - Network
 - z/VM
 - Linux
 - Middleware
 - Applications
- Think about the exponential growth in email traffic as you move out on the curve
- When do people get introduced to situation?
 - When did YOU learn what?



Situation for Dummies

- Quick guide to explain things over and over and over again
- Problem summary
 - Agreed solution criteria
- General configuration
 - How many CPCs? How many z/VM partitions? How many other systems? Etc.
 - Basic diagram
- Who is who?
- Chronology
- Steps/Recommendations done so far
- Pointers to where data resides

Consistent, Concise, Clear

- Status Notes and other documentation benefit from these three C words

- Consistent – Status Notes
 - Keeping the same format trains people to focus on content, not search for information
 - Covering:
 - What was done
 - What was learned
 - What is plan for next steps

- As SWR increases so does the amount of email, a concise one page email is more likely to be read

- As SWR increases, more important to be clear, especially when looking for specific people to do something
 - Call out names
 - Consider using bold font to highlight different people

Conference Calls

- Be on time / End on time
- Establish how roll call will be done
- Avoid back to back calls
- Different meeting rooms/calls for IBM and IBM/Client
- Say who is speaking.
 - Who? Bill? Bill Who? Bill Johnson? Bill Johnson from IBM or Bill Johnson from [Client]?
 - The more people there are, the more important this is.
- Remember the audience for different calls may have different levels of technical background
 - Taking time to establish terminology or background as necessary
- Prep calls before the real calls
 - Are valuable in some cases (not so much in others).
 - Helpful to establish the flow of the dialogue in terms of content / speaker
 - What to be prepared to deal with
- Every hour spent talking about what people need to do, is an hour they can't spend on doing what they need to do.

Other Communication Tips

- Avoid the shotgun email
 - Wastes time and creates duplicate work

- Take notes
 - Your memory is not as good as you remember
 - The worst situations go on for a long time, and that's when the notes are most valuable

- Listen

- Force people to listen if necessary
 - A crisis tends to make people think they have to multi-task all the time

- Establish how long it will take to do the next analysis step and schedule an update at that point in time and let people do the work.

Data Gathering

- You'll often need data at various levels of the system
 - List: what data, who on client side sends data, who on IBM side receives data
 - Have “Must Gather” data lists ready to go

- When asking for data, be prepared to describe exactly how that information is gathered.
 - Better yet, have documentation ready.

- Can you even get data? Are there security or privacy roadblocks? GDPR? Is the system a black-box?

- Ensure data covers same span of time and granularity

- Establish who will send and receive data

- What constitutes complete data? Validate and confirm

More Data Gathering

- Establish naming conventions and document (index) what data is what
- Know the time zone of each piece of data
- Establish where data will be kept and who will have access
- Sometimes data and tools have to go both ways. Have a process.
- One of the most common problems is z/VM data that IBM can't read when it gets it
 - Typically recommend packing via COPYFILE or VMARC
 - Ensures end of record for variable length files retain structure
 - Transmit packed file as binary
 - Avoids numerous problems
 - Files that are fixed length and binary do not necessarily need packing (compression) though that can help with network transmit time

Filling the Sky with IBMers

- Deciding when to go on-site
 - Usually more effective in office
 - Sometimes it is invaluable to be on-site
 - Understand situation
 - Focus on working towards a solution
 - Showing love

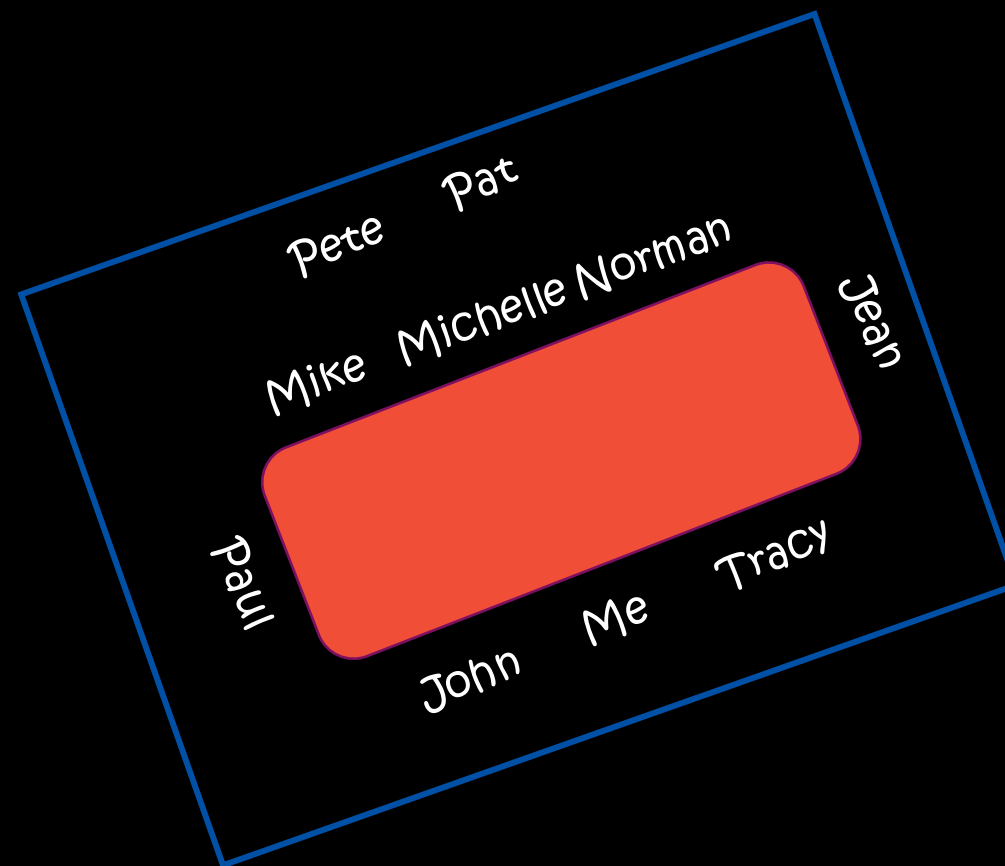
- Attitudes of teamwork on both sides makes it a mission rather than a hostage situation

- IBMers things to take:
 - Publications and references
 - Situation for Dummies information
 - Phone numbers of your life lines

- Other considerations
 - Normal travel procedures
 - Security:
 - Does customer have your name as on ID? (e.g. Bill <> William)
 - What can you bring onto their site? What can you take out?
 - Internet Connectivity

Face to Face Meetings

- Be on time
- Think about where you are sitting
 - What's your role?
 - Seeing the players involved?
 - Who is most likely to be the most upset?
- Diagram the meeting so you remember later who was who
- Take notes
 - Laptop vs. pen & paper
- Stay focused



Processes – Giving Instructions

- Think about the level of detail the person **executing** the instructions needs to do it right
 - Perhaps get someone to review that doesn't know anything
- Steps that are numbered and can be checked off
- WebEx or other way to share screen so you can see if they make a typo or are on the wrong screen
- If you feel you don't have time to walk through the procedure, it's most likely you don't have time to get the procedure wrong.
- Avoid overwhelming with documentation, be clear what steps are client's role and which are IBM's role.

Attitude

- You have to be focused on solving the problem, not just proving you're not to blame.
 - Be part of a team
- IBMers: Treat customers like people, because they are.
- Customers: Treat IBMers like people.
- IBMers: Customers forgive mistakes, they don't forgive excuses
 - If my first response is to be defensive, that's a flag for me to think more before I start to speak.



Don't be too Distracted by Design

“Beware of bugs in the above code; I have only proved it correct, not tried it.”

– Donald Knuth

- There are times where we can't trust documentation and design
- Having the experts and code and validating can be critical
- Need to validate fixes and corrective actions
 - In a crisis, risk aversion becomes even more heightened

Conjecture vs Fact

“There is no problem so bad that you can’t make it worse.”

– Chris Hadfield, CSA Astronaut

- Rash decisions in a crisis often escalate the situation.
- Conjecture is not bad.
- Believing conjecture to be fact is bad.
- Be certain to identify whether what you’re sharing is conjecture or fact
- If conjecture
 - On what is it based? Is there an experiment that can be done to verify it?

Impulse to think it's the same thing you just saw

“Measure twice, cut once.”

– Classic Adage

- Normal impulse to assume something with similar symptoms is the same as you just saw
- Often seen in PTF recommendations
- Need to offer as a possibility and validate
- Be careful that this does not derail analysis in progress

Correlation does not imply Causation

- Example: As ice cream sales increase, the rate of drowning deaths increases sharply. Therefore, ice cream consumption causes drowning.
- Things that are highly correlated give us good hints as to where to possibly investigate

Combine Analysis Threads

- Complex problems often have many components or layers, each with an expert doing analysis
- Need to take time to combine the findings and discuss
- See earlier discussion on making people listen

Learn why someone thinks a wrong answer is correct

- Progress is slowed when there is not agreement on the next step or the information shared to date
- Take time to listen and understand why people feel an incorrect answer is right
- Most often
 - Confused terminology
 - A concept that is not fully understood
 - Language barrier
 - Old information

You're in my light

- Part of supporting a technical leader and team is to stay out of their light
 - Bringing up things already covered
 - Interrupting or diverting the current topic
 - Asking for updates outside of the agreed channels/times
 - Doing an end-around
- This also applies to data collection
 - E.g. TCP/IP dumps in middle of measurement
- To help avoid this, provide a time for brain storming and fresh ideas



Other Thoughts

Challenges for Dual Roles of the Service Person

- Online services and help have decreased the “simple” problems that come into a Service/Help center
 - Fewer people equipped to handle
 - Changes customer expectations

- Goal is to achieve a balance between:
 - Hardcore problem solver
 - Focused on digging in data
 - No time for status
 - Poor bedside manner
 - Empathetic service professional
 - Spends more time understanding the problem and impact
 - Empathizes with the client
 - Seeks to find the solution that the client wants

- See related Harvard Business Review article:
 - <https://hbr.org/2017/01/kick-ass-customer-service>

Transient Leadership

- While there may be project management leadership, there is often a need for a technical leader
 - Role may be driven by being the ‘right’ person, and not just a ‘title’
 - May shift from one person(s) to another during the course of situation
 - May also be the ‘voice’ of IBM on calls

- Holy Trinity of transient leadership:
 - You have to make decisions, or at least drive them
 - You will seek the best information going into a decision
 - You will communicate decisions made to all the team

- Mutual support

- Find ways to celebrate and encourage throughout the process

Identify Actionable Items

- Ensure that critical actions will take place
 - E.g. Formal PTF applied when available to replace fix test or prototype
 - E.g. Add additional page volumes to be added

- Items directly related to the situation

- Items not directly related to the situation
 - Things noticed during the analysis that would be 'good to do'
 - Things held off during the situation to avoid changing more than one thing at a time

Create a “Lessons Learned”

- When a crisis is over, the last thing you’ll want to do is look back at it all. You’re just glad it’s over!
- Try to keep a note of things that really helped in the situation & what you wish had been done differently.
- If there are enough items, consider sharing and discussing.
- For items that didn’t work, can you change the process/system for next time?

Other Thoughts

- Test LPAR: Having a simple or stripped-down system that you can easily bring up to try things.
- Guard against burn-out
- Guard against 'A lack of seen activity is a lack of work'
 - Firing up a new test before the results of previous test are fully analyzed may be a waste of time
- How long a situation lasts depends, with SWR being a factor. But no one really knows how long it will take.
 - May impact work-life imbalance
 - May require you to have a back up for your role
- Optimize for production, not a benchmark
- IBM Z capability helps
 - Additional capacity dynamically



KEEP
CALM
AND
VIRTUALIZE
ON