# Failure To Change

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**June 28, 2008**

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# Evolution of 'interesting events'

**Fault Tolerance** ➝ **Dependability** ➝ **Resilience**

| | | |
|:---:|:---:|:---:|
| Failures | Intrusions | ? |
| Flaws | Slowdowns | |
| Faults | etc. | |
| Errors | | |
| Bugs | | |
| etc. | | |

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# Resilience: Organizational Capability

- **CERT resiliency framework:** Operational resiliency is the organization's ability to adapt to risk that affects the core operational capacities.

- **OSU Center for Resilience:** Resilience is the capacity of a system to survive, adapt, and grow in the face of unforseen changes, even catastrophic incidents. Also, the capacity of a system to tolerate disturbances while retaining its structure and function.

- **IBM Business Resilience Consulting: Resilience is simply the ability to be ready – to take advantage of good changes and bounce back from bad changes.**

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**Business resilience**

**Application resilience**

**Infrastructure resilience**

New business processes, mergers & acquisitions

New/enhanced applications

Updates, upgrades, config changes

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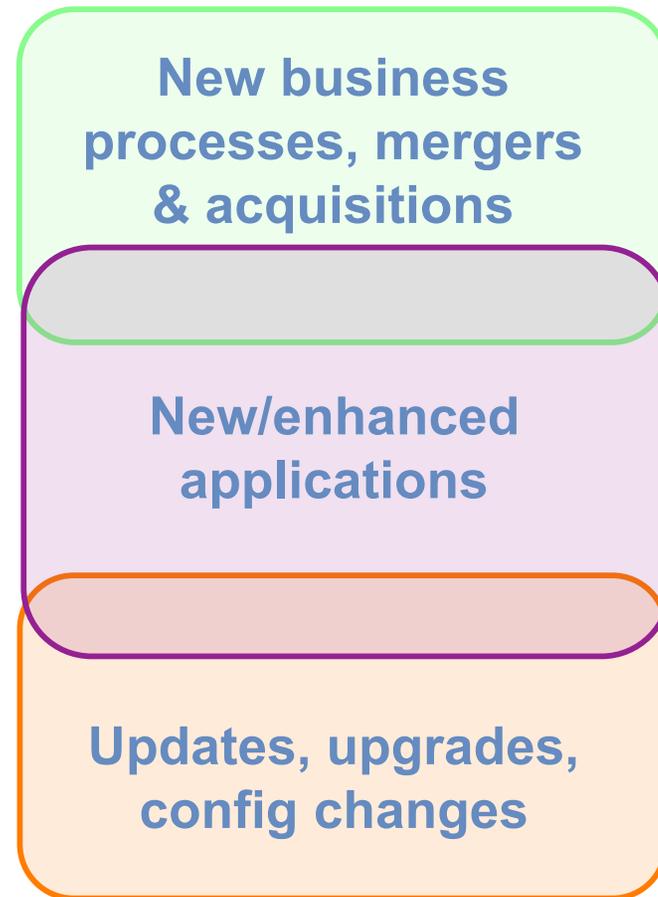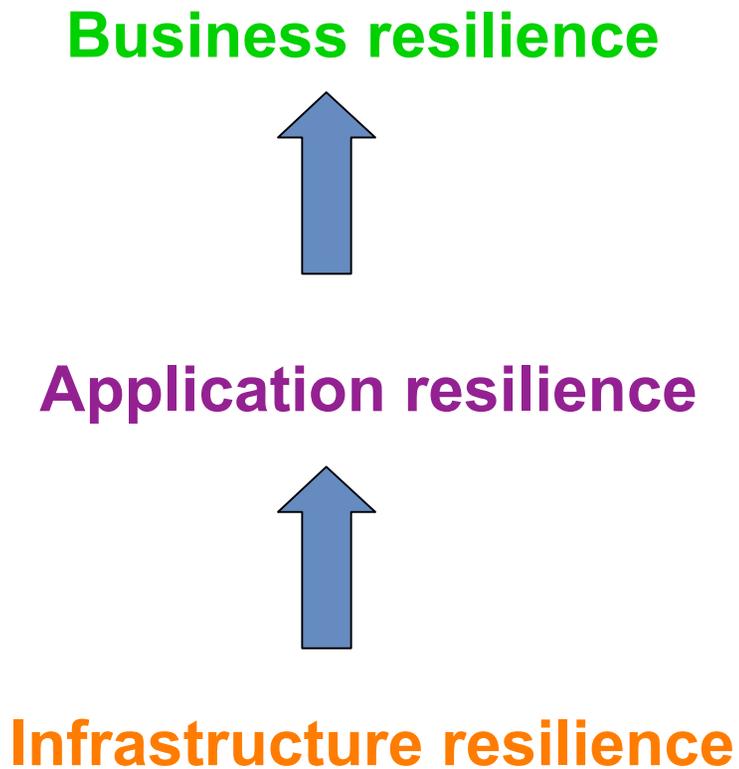
# Evolution of 'interesting events'

Fault Tolerance → Dependability → Resilience

Failures
Flaws
Faults
Errors
Bugs
etc.

Intrusions
Slowdowns
etc.

Updates
Upgrades
Maintenance
etc.

Tolerate bad change

Keep running during good change

# Need to evolve emphasis from Failure to Change

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✓ **Not only are problems different, so are solutions**

e.g., Updating code, altering I/O, adding new CPU while operation continues

✓ **Change is the everyday challenge of continuous availability not a rare event**

Business value much clearer, not a 'fear and dread' proposition

✓ **Failure to Change dependability/resiliency focus to good change may result in irrelevance**

The problems are critical and will be addressed

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