

# Realizing the True Benefits of ITIL (Using Acer eDC as Example)



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- Strategy: focus on enterprise-related value-add services

2003/2005: Security Skill Transfer with major US players

*Build the national SOC, Lead the SOC/MSS market share in Taiwan (>70%), includes the majority of government agencies*

**ITIL (ISO20000)**  
**BS7799 (ISO27001)**

2002: Disaster Skill Transfer With major US players

*Market leader in Taiwan, 40+ customers covering private/public sectors*

Managed Security Services

Disaster Recovery

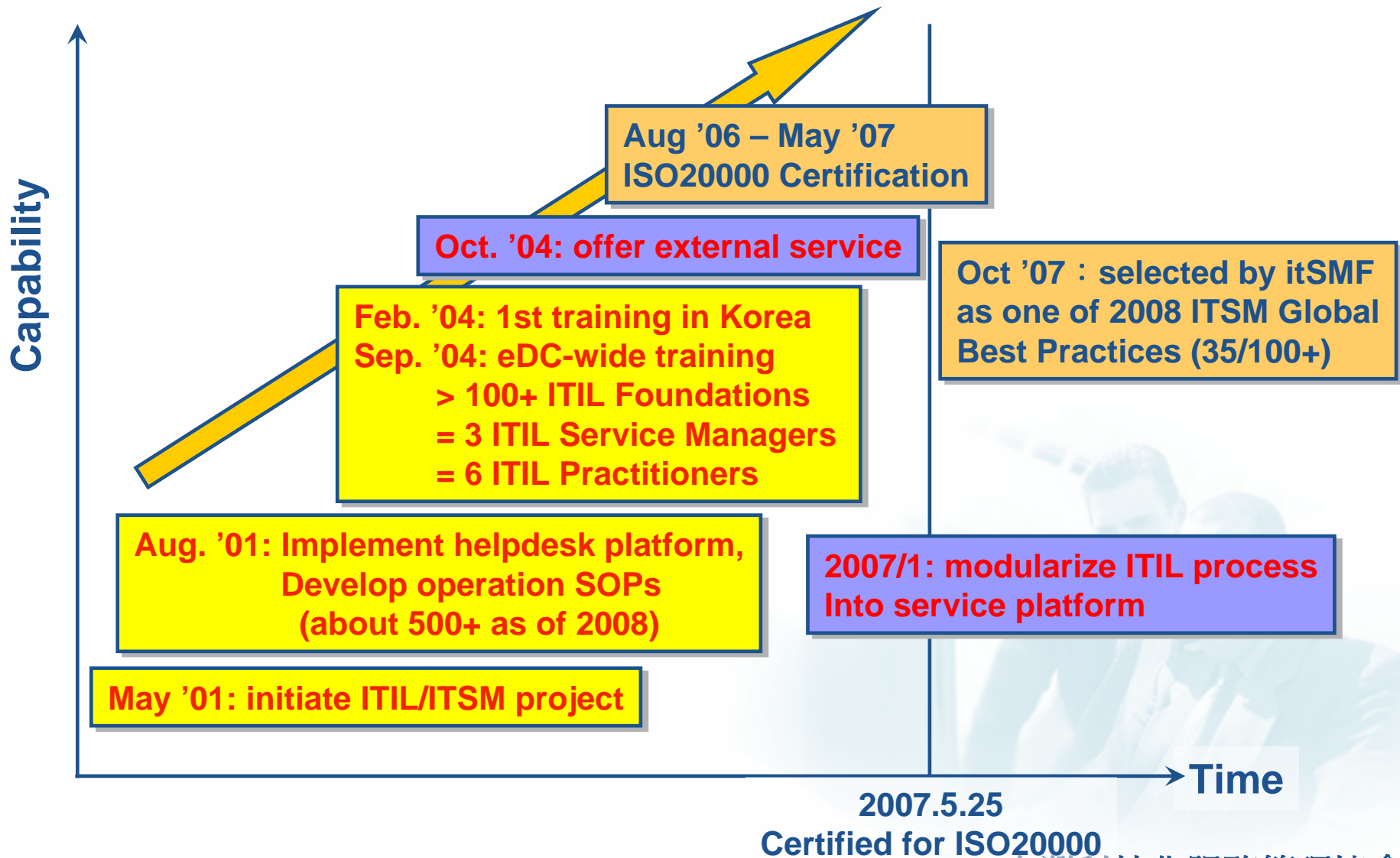
Managed Hosting

2001: >US\$150M for a quality data center in Asia

*99.999% availability certification  
100% availability > 6-years*

Best Data Center Facility

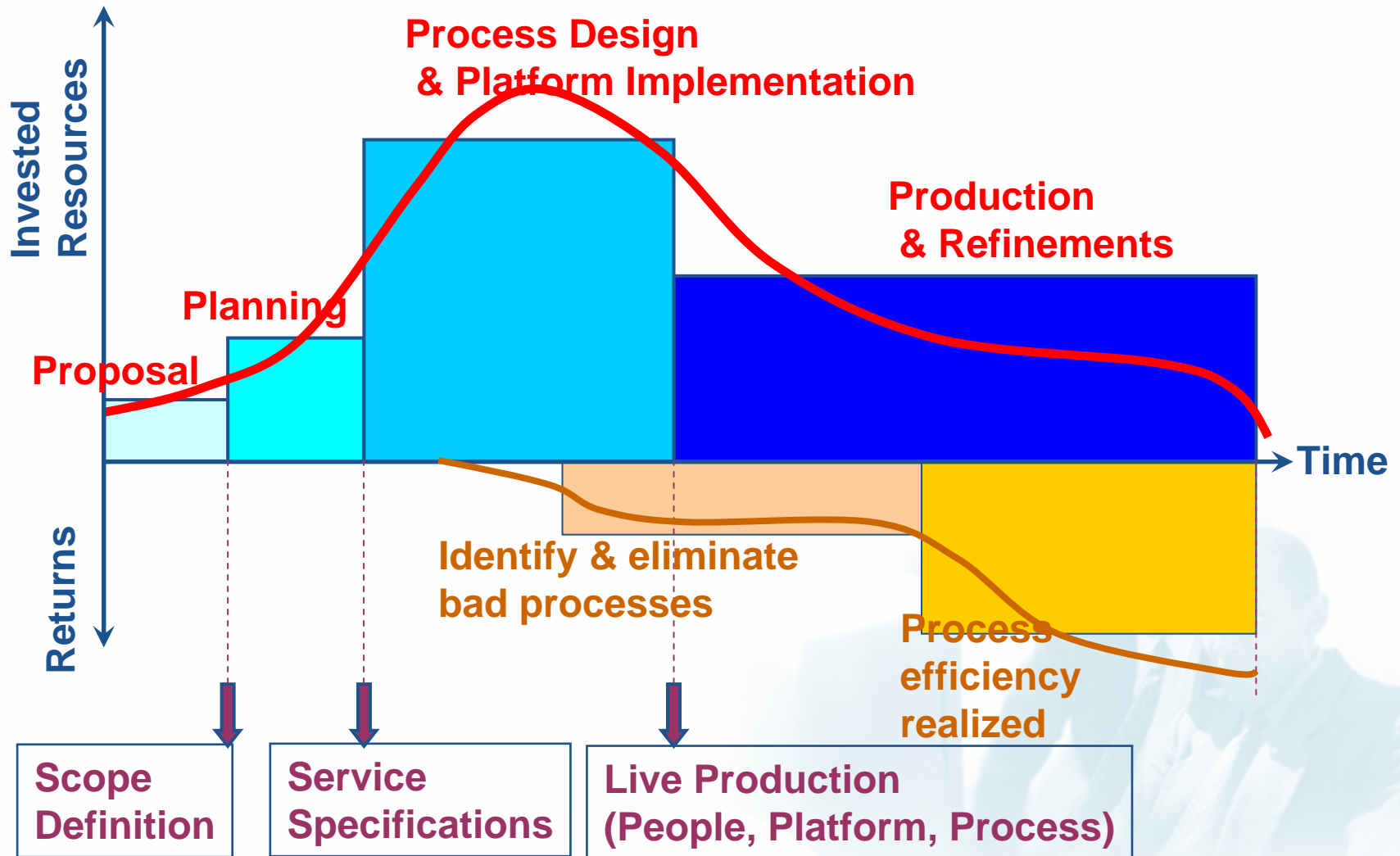
# eDC ITIL/ISO20000 Roadmap





# 1. Investment & Returns in ITIL Life-Cycle





# ITIL 2-Stage Implementation

- **Stage-1: Implementation**
  - **Build Compliant Processes**

- **Stage-2: Production**
  - **Service Refinements**

**Training**

- **Build Awareness/Consensus**

**Assessment**

- **Status and Gap Analysis**
- **Design Processes**

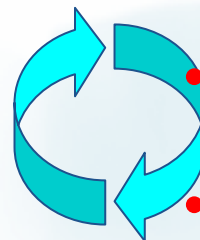
**Tool Selection**

- **Automation Tool**

• **Process  
Realization via  
Tools**

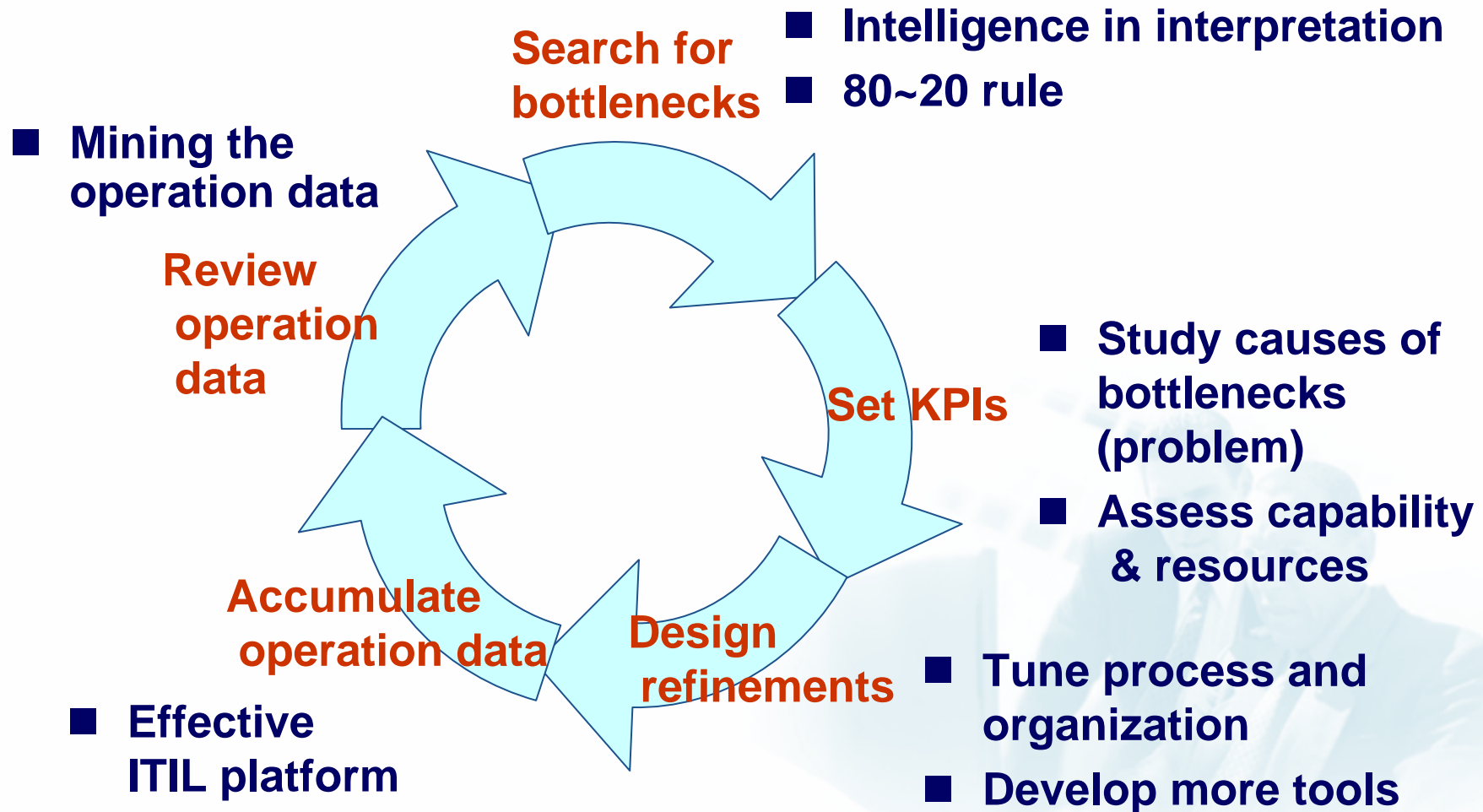
**Build Customized Processes**

**Implementation  
Complete**



- **Review and Select  
Items for Improvements**
- **Tune Process and Tool**

**Process Refinements**

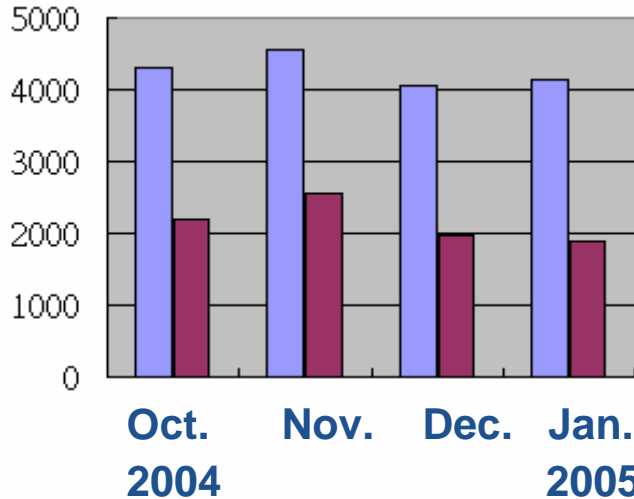


## 2. Cost- and SLA-Oriented Incident Handling Examples



# Identifying Bottlenecks

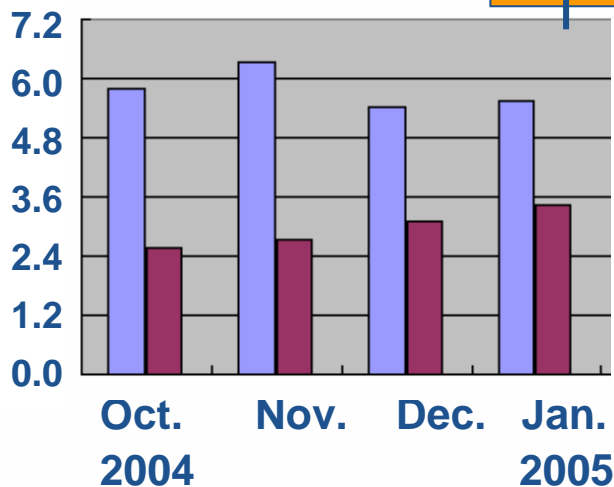
## # of tickets



- Too many invalid tickets
- Use 20-80 rule to identify the majority types of tickets



## # of tickets/hr



Automation and intelligence in incident identification

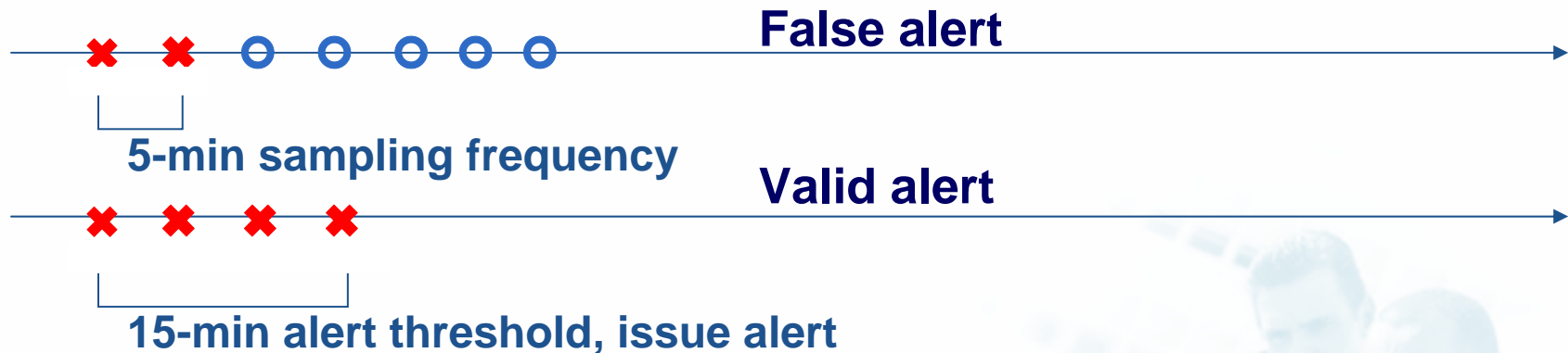
- The ratio of new/resolved incidents indicate operation manpower requirements



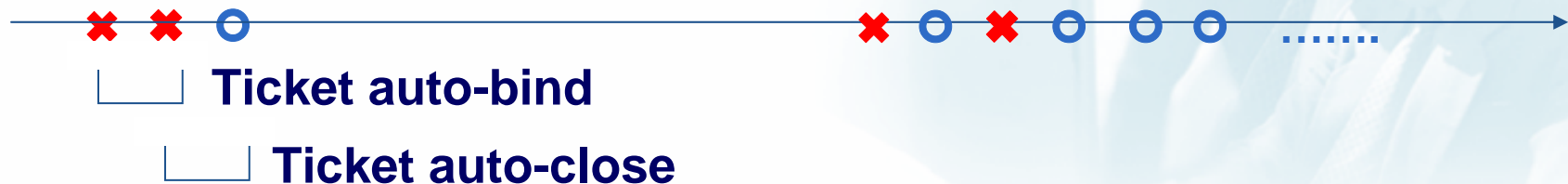
- Topics: low-speed circuit monitoring and alerts
- Define alert threshold to reduce “false incidents”

○: circuit up

✖: circuit down (ticket)

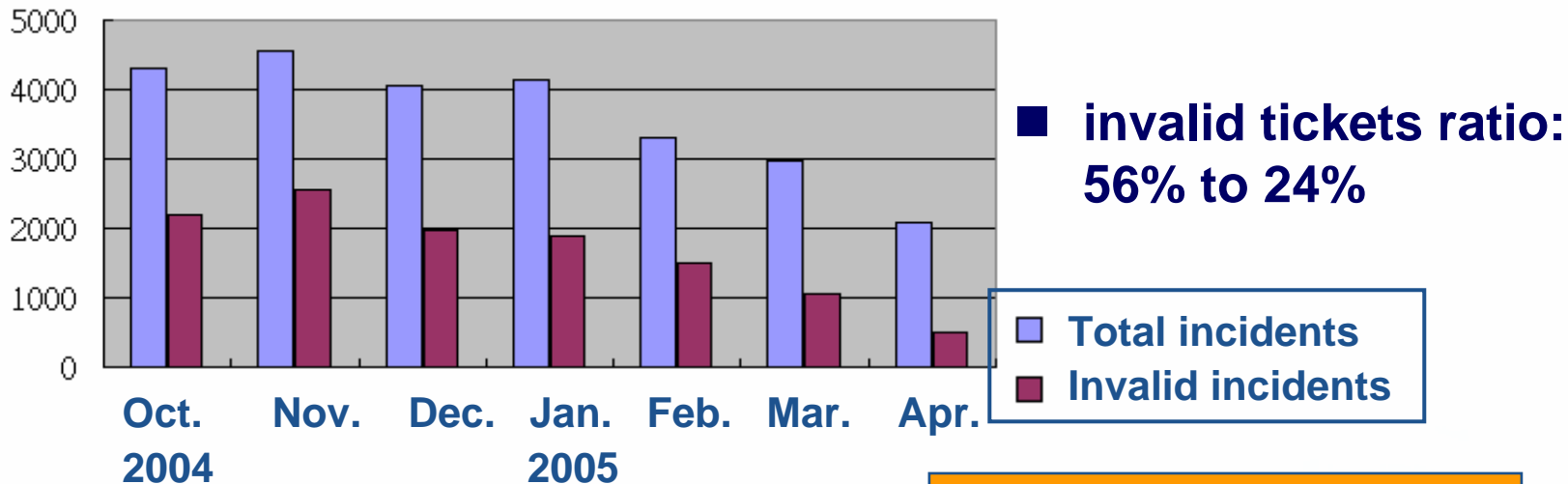


- Define automation scenarios to reduce “invalid tickets”

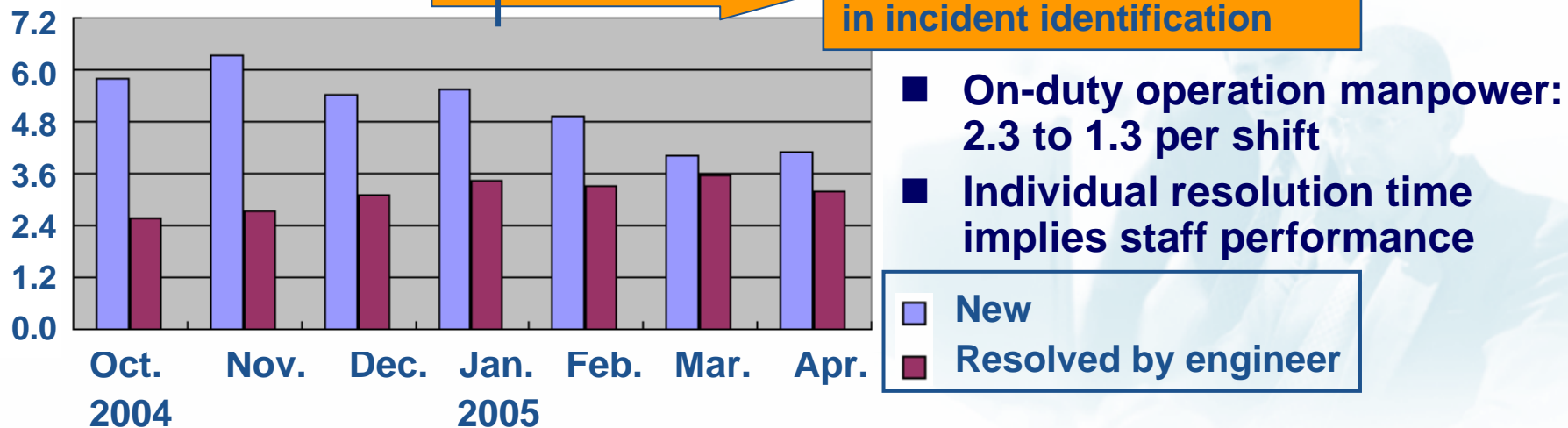


# Eliminating Bottlenecks

**# of tickets**



**# of tickets/hr**



- **Acer eDC was responsible for the operation of Taiwan lottery network (2002~2006)**
  - >7,000 lottery outlets, each outlets with dual circuits (X.25, dial-up)
  - Upon X.25 outage, dial-up to lottery server automatically
- **Operation Scenario**
  - **SLA: any outlet could not be down for over 2-hours**
  - **Identify root cause of outage and refine backup process**
    - Physical circuit, network exchange, ...

## ■ Service Level Achieved

	total outlets	outage incidents	outage duration
Q1/2004	6981	468	20-min
Q1/2005	7192	402	12-min

## ■ Mass Outage of Circuits

### – Rationale

- Avoid simultaneous dial-up to the same carrier hub

### – Scenario

- On mass outage of circuits of the same carrier hub, massive dial-ups to the hub might cause equipment failure from overloading (denial of service attack)

### – Strategy

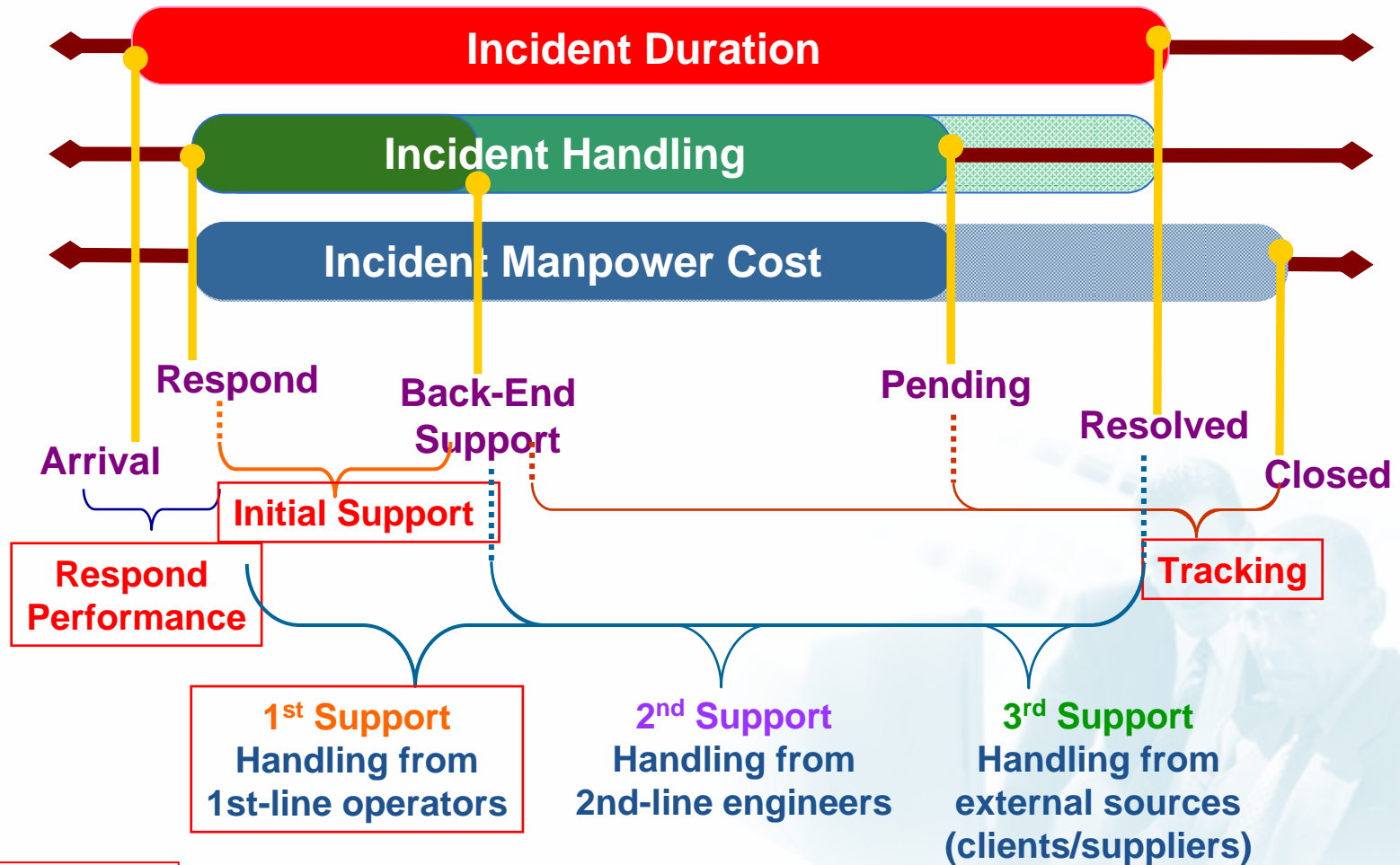
- On mass outage of circuits, perform correlation on the outage area (if they fall under the same service area of carrier hub)

### – Action

- Alert carrier of equipment failure

# 3. In-Depth Analysis of Incident Cost





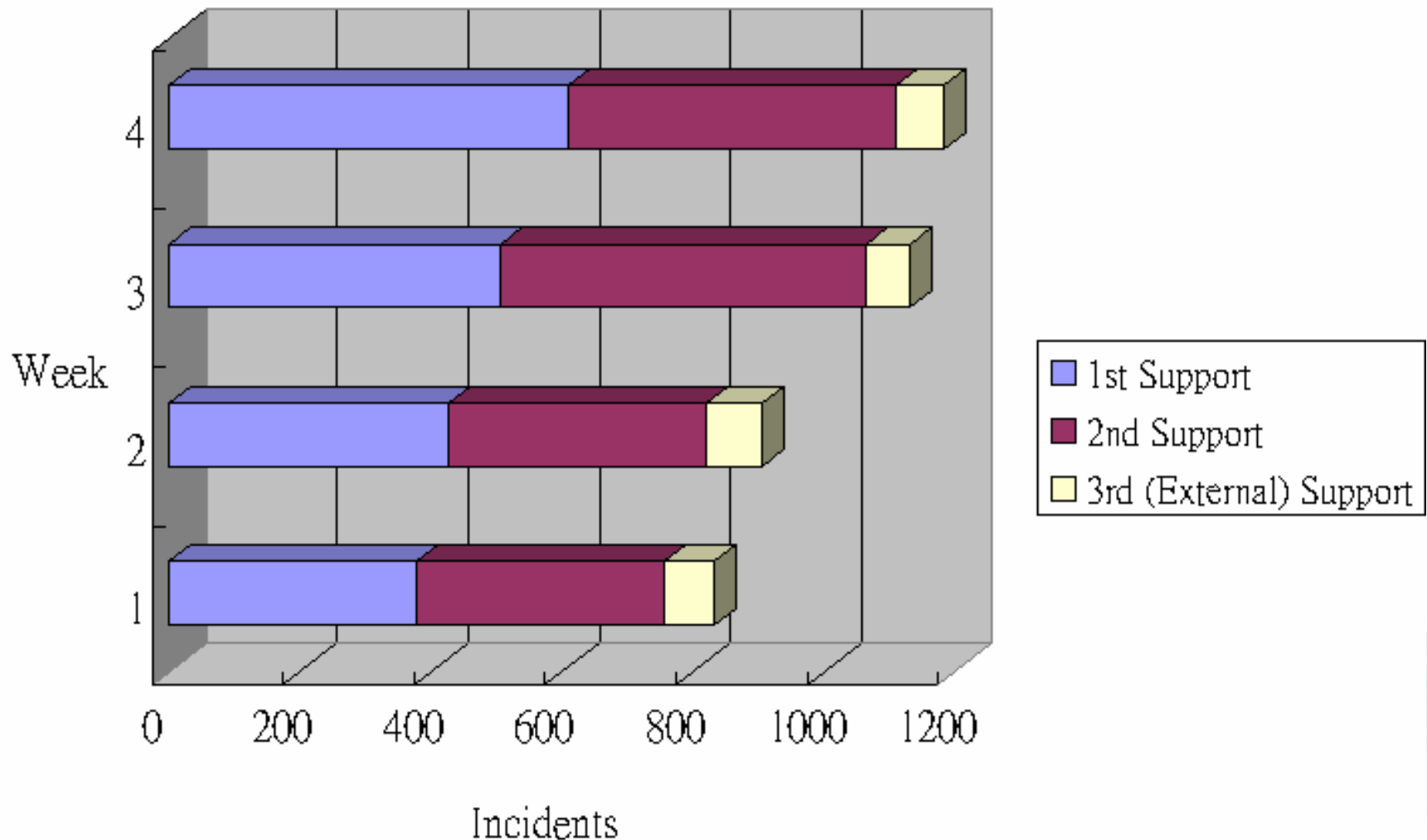
**1st-line responsibilities**

# The Need for Incident Life-Cycle Analysis (I)

- Given the performance below, how many operation staff are needed for 1st- & 2nd-line of support?
- How do you improve the performance of 3rd-(external) support?
- How do you exclude yourself from bad SLA performance?

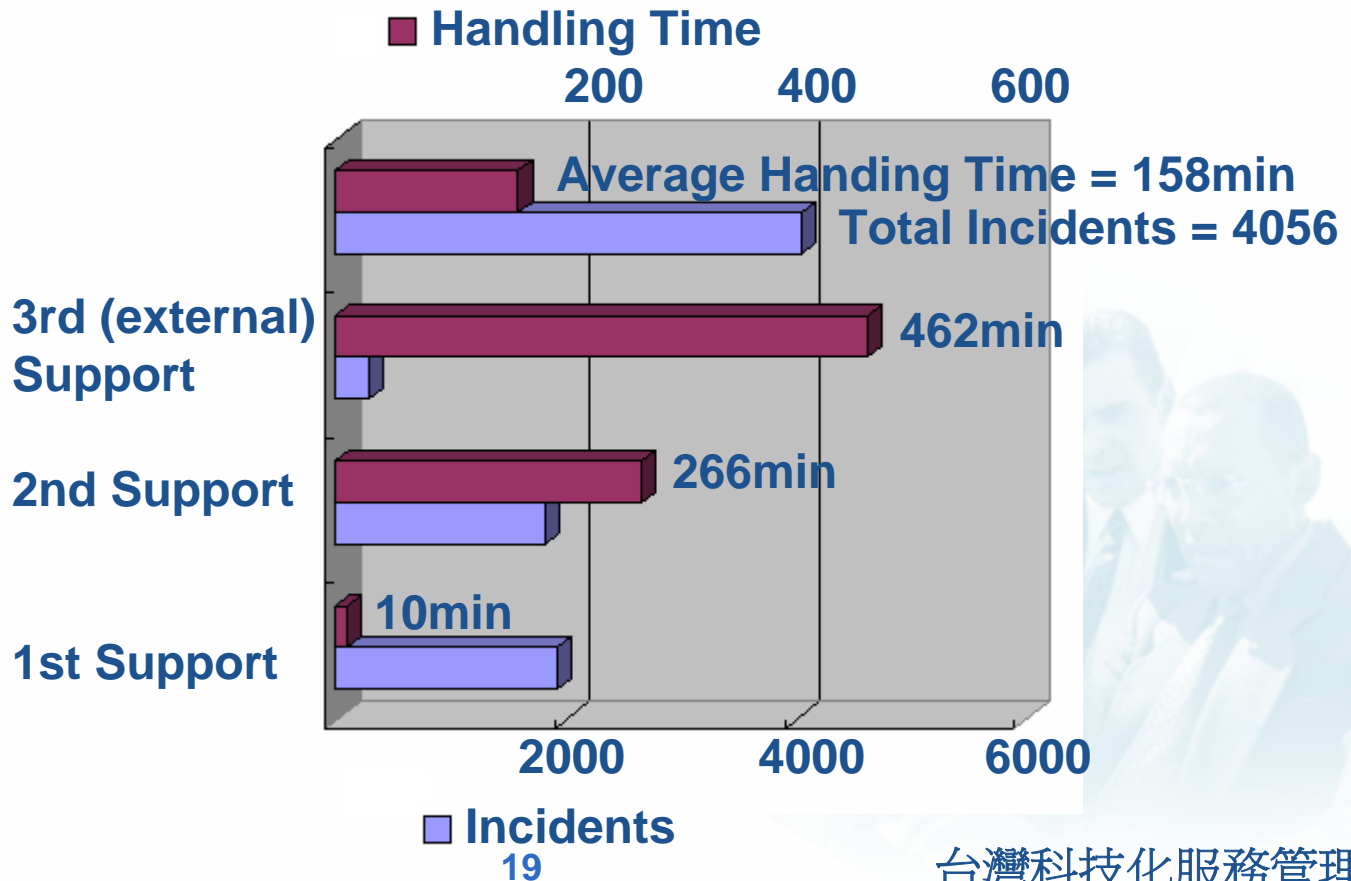
	Week-1	Week-2	Week-3	Week-4	Average /Sum
<b>Incidents</b>	834	906	1132	1184	4056
<b>Duration (hh:mm)</b>	2:26	2:13	2:30	2:49	2:31
<b>Response</b>	0:01.3	0:02.2	0:01.6	0:02.2	0:01.8
<b>Frequency</b>	0:09.7	0:07.7	0:06.9	0:06.2	0:07.4
<b>1st Support</b>	380	429	507	610	1926
	0:05	0:14	0:07	0:11	0:09
<b>2nd Support</b>	378	393	558	501	1830
	3:05	3:34	4:27	6:06	4:26
<b>3rd Support</b>	76	84	67	74	300
	9:04	7:30	5:21	8:38	7:42

- 1st-line support, though straightforward, is indispensable.



# The Need for Incident Life-Cycle Analysis (III)

- Compared with incident frequency of 7.4min/incident, 1st-line support needs 2 staff per shift (average)
- An incident can be resolved in 135min (average) by internal resource
- Need to develop OLA/SLA to external resources



# Conclusions: Payoff vs. ROI

- **The Importance of ITIL Platform & Tools**
  - **Link processes among departments**
  - **Key of process automation**
  - **Gateway for operation data**
    - Explore bottlenecks
    - Review & verify effectiveness
    - Cost and performance analysis
- **ROI analysis is meaningful only when entire life-cycle is taken into account**
  - **Myth: ROI is impractical because**
    - No way to amortize the investment
    - No independent revenue for ITIL
  - **Service and process refinements/tuning is the key to ROI**
  - **The longer the life-cycle, the better the ROI**

# Thank You, Q/A

