

Managing an Internet Data Center (IDC)

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*The opinions expressed are purely my own.



Managing IDCs

Building Management –Ready Applications

- ▶ IDC is more than a Cloud
 - May host multiple clouds
 - Internal applications to support Internet services (e.g. lots of log processing)
- ▶ What's difficult?
 - Deployment
 - Monitoring
 - Capacity management
- ▶ Why difficult?
 - Technology gap between development & operations
 - Dev lacks integration with operations processes
 - Complex dependency tree for applications

Solution 1: Integrate Software Development With Operations

- ▶ Visualization, such as source code (and deployment meta-data) overlapped with run-time logs
- ▶ Treat management scripts as first order software objects
 - Unit tests
 - Software version control
 - Tool support

Solution 2: Process Engineering for IDC Management

- ▶ ITIL for IDC? But ...
 - More detailed than ITIL
 - Better integration between software development and business
 - Need supporting tools

Solution 3: SLA-Enabled Components

- ▶ Component must expose interfaces for SLA management to their clients
 - Service level indicator – component's interface to caller's SLI)
 - Objective – predicate on SLI
 - Exceptions interface – when SLO is unachievable
- ▶ Components must request SLAs from its providers