

Charting the future

Consoles to AI-driven infrastructures

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Four Stages of Organizational Maturity

Level 1



Console Based

Reliance on network and system engineers to login to devices and configure & manage systems based on organizational requirements.

Three Goals of the Session

Level 2



Ad-Hoc Commands

Using repeated commands in various devices to do perform simple functions or gather reports.

Level 3



DevOps + Automation

Leveraging DevOps toolset and automations to deploy and manage infrastructure resulting in massive efficiency boost by integrating other systems and services.



Allowing Machine learning and Al to gather, train and implement infrastructure management without the need of human intervention.

Level 4

- Explain Stages 1, 2 and 3 of Organizational Automation Maturity.
- Achievements and limitations at every level.
- Steps involved to transition from hands-on infrastructure to Autonomous infrastructure and how NTT helps clients achieve that.



Level 1: Ad-Hoc Automations



Advantages

- Fast parallel execution for a Quick Fix
- Can achieve some amount of standardization
- · Can reduce typos and avoid outages

Ad-hoc commands in computing refer to one-time, on-the-fly commands designed for specific tasks or situations typically leveraging SSH or APIs of devices.

Disadvantages

- Cannot undo changes
- Reactive rather than proactive
- One time and cannot re-use automations in future
- Cannot handle unexpected output
- Can only run simple commands on similar devices



Level 2: DevOps & Automation

DevOps merges development and operations for automated IT infrastructure management, optimizing scalability, and accelerating deployments through code-driven practices.



NTT-Data Managed Automation Platform





Automation Centralizes Data





Centralized Data

- Data is the most important asset of any organization
- All data can be fetched from a central point
- You have complete control over your data
- Generation of reports is easier
- Data can help in predicting issues using AIOps
- Data can be used in solving probable issues



Level 3: AIOps

AlOps is not a single tool but a thought-out operational approach





Architecture of SPEKTRA Platform



SPEKTRA results

in a proactive, noise-free, up-to-date, integrated, and automated IT estate for clients

Differentiated Platform Features via AlOps



Event Correlation and Log Analytics

(correlates similar events received across the client estate)



Business and Operational Benefits

Noise-free IT estate ~4X reduction in number of tickets per device



Classification and Root Cause Analysis

(groups corelated events into parent-child clusters, assigns root cause based on historical data)



Increased network uptime by faster redressal of issues Decreased ticket handling time



Anomaly detection

(detects points/devices that malfunction repeatedly and flags them as incidents)



Improved network quality

Pre-emptive issue(s) detection,~85% tickets are proactive

These benefits are achieved via SPEKTRA platform features combined with NTT's skilled operations engineers



SPEKTRA Features

AlOps is often thought of another block in operations

AlOps requires a full rethinking of operational approach.

Engine is just a piece of the bigger picture.

AlOps solutions must demonstrate that they can

- differentiate early warning signal
- associate early warning signal with the other portions of the incident signature such as those coming from log files and eventing tools





Final Conclusions

Level 3: AIOps Knowledge required: + ML/AI programming and Statistics.

Level 2: DevOps & Automation Knowledge required: + Automation & DevOps

Level 1: Ad-Hoc Commands Knowledge required: + APIs

Level 0: Console Based Knowledge required: Infrastructure The more your organization embraces technology, the more benefits it reaps.

NTT-Data guides clients at every stage: from Tech Consultancy to Autonomous Infrastructure Setup.

> NTT-Data has tools in place (MAP: DevOps, Spektra: AlOps) to help clients at every stage of their automation journey.

NTT-Data teams have Subject Matter Experts in all the areas combined to provide clients the best experience.





Thank you!

Join us for a coffee at the NTT DATA Coffee Lounge in the World of Solutions!

Visit us at the NTT DATA Private 5G corner at the Aviation Booth in The Hub!

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Join our upcoming session

Network automation – A world of misunderstandings

You develop network automation solutions for others and experience the issue of misunderstanding during the development. Find out how methods like (user-)storymapping help to create a common understanding of the problem you and your team are trying to solve through network automation projects.

Henry Oelsner, Technical Consultant, NTT Ltd. When: Thursday, 8 February | 1:30 pm to 2:15 pm Where: DevNet Theatre

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