Telstra Clear

ITNCM Deployment Overview for IBM Pulse in Sydney 2012

Confidential

About Telstra Clear

TelstraClear is a voice and data company, providing innovative market leading products, services and customer focus to the business, government, wholesale and residential sectors.

At the heart of TelstraClear's strategy is a focus on its customers. TelstraClear claims the best IP network in New Zealand, offers the market's best trans-Tasman services and market differentiating triple-play offer of voice, internet and digital TV services for residential customers in Wellington, Christchurch and Kapiti.

TelstraClear has the backing of and are wholly owned by Telstra Corporation Limited, Australia's largest telecommunications company.

Solution Selection influencers

- A credible market leader and looked to leverage a strong partnership with IBM
- Build on an already mature and complex Tivoli Netcool implementation and framework
- An agile and experienced integrator specialising in Tivoli Netcool with a trans-Tasman presence
- A scalable and a multi-tenanted architecture
- Rapid deployment
- Relatively seamless integration into an existing Service Assurance ecosystem for event and Incident Management
- Seamless integration into the existing process framework of Incident, Problem, Asset, Change & Configuration Management
- Agile and quick response to issues encountered

Solution functionality sought by TCL

Workload Reduction

- Capable of running scheduled device configuration backups

- Able to roll out configuration changes to multiple devices at the click of a button

- Able to logically group devices for management

- Configuration syntax enforcement

- Cut-through CLI access

Solution functionality sought by TCL

Productivity and Security Enhancement

- Enforcement of user roles
- Able to enforce predefined configuration compliance
- Configuration compliance checks prior to rollout
- Able to perform version control
- Able to export configuration for inclusion in CMDB
- Reporting
- Unauthorised change detection and notification
- Notification of failure of device updates, OS upgrades, backups, etc.

Telstra Clear Business Objectives

- Reduce Operational costs
  - Reduction in time and effort required to roll out configuration changes
  - Reduction in incidents caused by configuration error
  - Reduction in time and effort required to perform compliance assessments

- Minimise Operational risks
  - Reduction in incidents caused by configuration error
  - Proactive detection of unauthorised changes
  - Automation of on-demand compliance assessment

Telstra Clear Business Objectives (cont.)

- Improve customer experience
  - Reduce frequency of service affecting incidents due to configuration error
  - Proactive detection of unauthorised config changes

- Improve Operational Controls
  - Bulk rollout of configuration changes
  - On-demand compliance assessment
  - Detection of unauthorised changes

Solution Overview

- Single managed service customer with possibility of more to be added
- Initially in excess of 1200 devices to be managed
- OS image upload reduced from ~ 30 minutes to ~ 5 per device
- Security compliance checks
- Automated bulk roll-out of configuration and OS changes
- Enforce syntax rules for configuration changes
- Reporting (such as compliance reports)
- Emit events on
  - Detection of unauthorised config changes
  - Failed units of work (such as applying configuration, non-compliance)
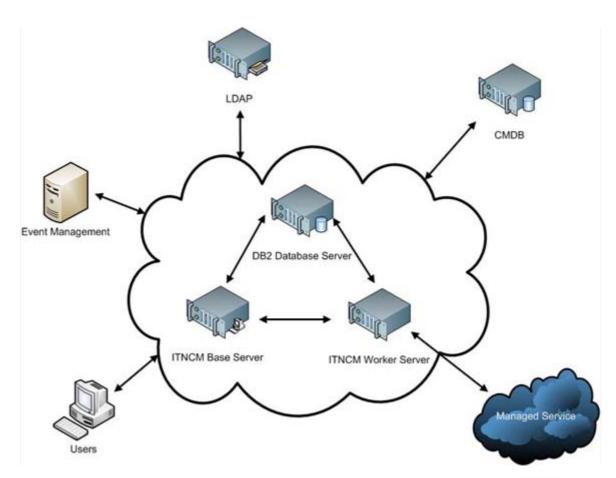- Enrich existing CMDB with config data from ITNCM

TNCM Architectural Overview

- Worker servers - interact directly with network devices
- Presentation Server
  - Tivoli Common Reporting
  - Administration Interface
  - Compliance Application
  - Web start GUI – configuration application
- DB server – configuration data

TNCM Solution Architecture

TNCM Solution Hardware

- 3 x servers with RHE 5 64 bit
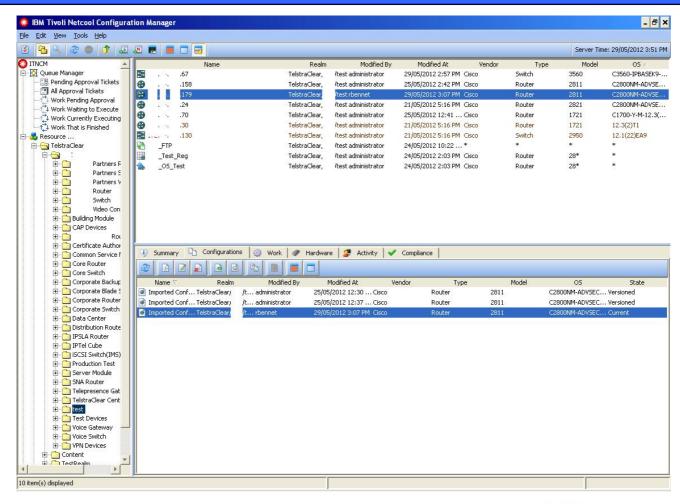 - Dual Quad Core Processors
  - Memory   : 16 GB
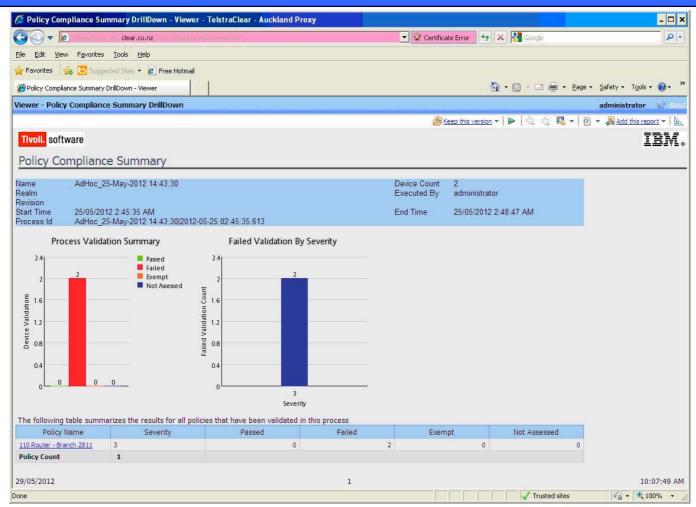 - HDD   : 300 GB RAID 1

Operator TNCM Dashboard

TNCM Reports

Additional Customisations

- DB backup scripts

- New compliance checks

- Data export scripts for import into CMDB

Solution Roadmap

- Additional managed networks
- Integration with LDAP for authentication

Where to next for TCL

- Rollout of ITNCM across enterprise network
- Work out any problems with multitenancy
- Rollout to other large enterprise customers

Project Challenges

- Security and process driven service provider environment
- Initial deployment had to support substantial growth and ability to scale
- Tight timescale – 3 months to go live
- Some device and operating system levels not supported. Mitigated by:
  - IBM released of updated drivers
- Some required functionality not supported out-of-the-box.
  - Scheduled DB Backup – mitigated by custom expect scripts and cron jobs
  - CMDB export – mitigated by custom scripting and cron jobs

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