NECTI Managed Services Division
Overview & Capabilities

Enabling NEC in Realizing their Global Expansion Objective
Agenda

1. Managed Services Overview
2. Managed Services Capabilities
3. Managed Services Journey and Team Structure
4. Managed Services Case Studies
Managed Services Overview

Infrastructure Management
- Helpdesk/Inside Sales Call Center
- L1 Service Desk
- L2 Support
- L3 Support
- ITSM- IM, PM, CM, Performance Reporting Etc.

End User Computing Management
- EUC
- Networking
- Middleware
- Packaged Applications

Application Management
- Industry/Solutions/Custom Applications

Network Management
- Networking

Security Management

Our Capabilities
- Infrastructure Management
- End User Computing Management
- Application Management
- Network Management
- Security Management
- NEC Products & Solutions

Services Packages

<table>
<thead>
<tr>
<th>Services Packages</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium</td>
<td>Remote Support, 24x7x365 support services, performance monitoring and management SLA target of 98%</td>
</tr>
<tr>
<td>Standard</td>
<td>Remote support during extended business hours 7:00 to 21:00 Mon-Sat SLA target of 95%</td>
</tr>
<tr>
<td>Essentials</td>
<td>Remote Support, 8:30 to 17:00 Mon-Fri</td>
</tr>
</tbody>
</table>
Managed Services Portfolio

**Managed Networks**

We simplify IT operations, proactively resolve problems, and maintain network uptime.

**Managed Infrastructure**

We help you maximize value from your infrastructure which is at the core of your business.

**Managed Collaboration**

With our help, you can provide a consistent, high-level collaboration experience for your end users.

**Managed Data Centre**

We manage the performance and availability of your data center with a holistic view of your physical and virtual environments.

**Managed Applications**

We offer strategic engagement services through AMS Advisory, AMS Assurance & AMS on Demand.

**Managed Security**

Our pro-active threat monitoring & management helps you reduce network vulnerabilities.
End User Computing Offering

SPOC
- One # to Call; 24x7
- Vendor Dispatch
- Assignment & Escalation
- Enterprise Reporting

Self Service Portal
- Direct Ticket Entry
- Self-Help Knowledge Base
- Request Management

Incident/Problem Management
- Registration
- Escalation
- Tracking
- Trend Analysis
- SLA Measurement

Account Admin and Request Fulfillment
- Creation & Deletion of Network Accounts
- Management of Distribution Lists
- Assignment of Permissions

Technical Resolution
- Network
- Email
- ERP Systems
- Web Applications/Internet

Password Reset
- Troubleshooting
- Shrink-Wrap, Custom Apps, Desktop O/S
- Asset Verification

H/W & S/W support
- Status Desk
- Status Line
- Remote Desktop Control
Remote Infrastructure Management Services

**NECTI Performed Offshore/Onshore**

- Incident Management
- Problem Management
- Change Management
- Optimizations

**Systems**
- Windows
- UNIX
- Linux
- AIX
- Solaris
- As/400
- IIS
- IPlanet
- Apache
- Weblogic
- Websphere
- ATG
- Oracle
- SQL
- Sybase
- DB2
- IERS
- NEC
- IBM
- HP
- Dell
- EMC
- Hitachi

**Web Servers**
- Exchange/ Lotus Notes/ Zimbra
- Express cluster/ Veritas
- Master scope/ SCCM/ Tivoli
- Backup Exec/ Arc Serve/ Avamar
- MS Office/ Office365
- Symantec/ McAfee/ Trend Micro

**Databases**
- LAN
- WAN
- Routing
- Switching
- Firewall
- VPN
- Voice N/W

**Storage**
- Nortel/ Avaya/ Accord EPABX
- Call forwarding
- Video, IVR, Conferencing
- Audio Conferencing

**Infra Apps**
- Hands and Feet, Break Fix, etc.
- Managed Secure Rack, WAN and Internet Services
- Data Center Hosting
- Collocation/Caged /Shared areas

**Network & Security**
- System Administration
- Build
- Maintenance & Patching
- Upgrade & Software distribution
- Security Admin
- Back up & Recovery

**Optimizations**
- Technical Support & Problem Resolution
- System performance & Capacity Planning
- Architecture/Design
- Security Administration
- Back up & Recovery

**Unified Communication**
- Service Desk
- Monitoring/
- Batch Scheduling
- Batch Job Execution
- Inventory Management
- Upgrade & Software Distribution
- House keeping Jobs/Log Mgmt

- System Administration
- Build
- Maintenance & Patching
- Upgrade & Software distribution
- Security Admin
- Back up & Recovery

- Technical Support & Problem Resolution
- System performance & Capacity Planning
- Architecture/Design
- Security Administration
- Back up & Recovery

- Hands and Feet, Break Fix, etc.
- Managed Secure Rack, WAN and Internet Services
- Data Center Hosting
- Collocation/Caged/Shared areas
**Software Factory**
Application & Suite
1. Engineering Platform
2. Project mgmt. Platform
3. Communication Platform
4. Operation platform

**MASTER SCOPE**
Integrated Operation Management Software Suite
Offers
1. System Manager
2. Operations Navigator
3. Network Manager
4. iStorage Manager
5. Application Navigator

**NGCS**
Private Cloud Solution optimized For OpenStack
1. Clustering Support for Management Console
2. Scale Support by Automation tool
3. Low cost, easy and fast : shared storage

**EXPRESSCLUSTERX**
An Integrated High Availability and Disaster Recovery Solution

**Office 365**
1. Exchange Online
2. SharePoint Online
3. Lync Online
4. Office Pro

**EMS**
Telecom Energy Management System (hereafter, TEMS) for mobile telecom towers

**DMIC**
Delhi - Mumbai Industrial Corridor (is India's most ambitious infrastructure program aiming to develop new industrial cities as "Smart Cities" and converging next generation technologies across infrastructure sectors.)

**RAKES**
Middleware Application & Suite for Hospitality Management
Offshored Managed Services Framework @ NECTI

Monitoring Team

Will try to solve the case at the first place using the Knowledge Base

Will generate a ticket solved based upon the severity level

Ticket generated & assigned based on the severity level & SLA

Escalated to L3 if not solved by L2

Knowledge Base

Automatically generates ticket & send it to L2 Team

Service Desk

L1

BMC Remedy Force

L2

Application Support & Infra Management Team

L3

NECTI Support Team

- Help Desk Model at NECTI is 3 layered
  - L1 (Service Desk)
  - L2 (Technical & Business Specialists)
  - L3 (Internal & External Technical Experts)
- The L1 Service Desk resolves problems and questions from users on a wide range of supported technology.
- L1 Service Desk strives to resolve approximately 60% of incoming calls and leverages the L2 and L3 skills/knowledge and try to resolve the remaining 40%.
- 24*7*365 Availability
- Single Point of Contact Support (SPOC Support)
- English Support
- Phone & Email Support
- Ticket Lifecycle Management
- Maintenance Support
- Claim Management
- Product Up-gradation
- Capturing and Escalation of tickets
- FAQ & KMDB
- Continual Service Improvement

TATA HOSTED
TOLL FREE
CONTACT CENTRE

- Global & International Toll Free Numbers
- Multichannel Call Routing
- Interactive Voice Response
- 100% Multimedia Recording (voice/chat/email)
- Unified Agents & Supervisor Interfaces
- Real Time Reports & Dashboards
- Historical Reports & Dashboards
Managed Services Journey

- **2010**: Incorporation
  - Global Masterscope Support
    - Total Team Size 10

- **2011**: Started from Scratch with Express Cluster Support
  - Total Team Size 05

- **2012**: Software Factory & Rakes Global Support
  - Total Team Size 18

- **2013**: Yamaha Office 365 Bilingual Support
  - Total Team Size 25

- **2014**: EMS Support & ITPF Global Support
  - Total Team Size 30

- **2015**: EMS Support & ITPF Global Support
  - Internal Lead Generation
  - Total Team Size 55

- **2016**: DMICLDB Helpdesk Support
  - Total Team Size 40

- **2017**: Hadoop Global Support
  - Total Team Size 25

- **2018**: NEC AU Support
  - ITSM Support
  - NEC GISP Global Support
  - Total Team Size 85
Leverage NECTI Team

Leverage NECTI Managed Services Team as part of a larger global team

NECA Network Operations Team

NECTI Managed Services Team

Customer experience sees one team
NECTI Managed Services
Case Studies
Case Study - Managed Services Australia

Client
NEC Australia (NECA) is a leading technology company, delivering a complete portfolio of ICT solutions and services to large enterprise, small business and government organizations. NEC Australia has more than 47 years’ local experience and the global backing of NEC Corporation. This makes it one of the most trusted names in the Australian technology industry.

Business Need
• To provide 24/7 NOC support to New NEC Australia customer
• To be more competitive in Australian Market by providing Managed Services at low cost and high quality
• Faster Ramp up - ISO/ITIL compliant Service desk
• Bring new vendor support capabilities
• Provide DR capability through geographic diversity

NEC Solution
• Ready to go infrastructure setup
• Skilled subject matter expert
• Faster ramp up and quality delivery
• ISO certified and ITIL aligned delivery centres
• Lower infrastructure and support cost
• Increased performance
• More accessibility
• Simplified Knowledge management

Business Benefits
• Reduced support cost
• Increased support coverage
• Increased quality standards by having international quality processes and certifications in place
• Increased compliance by having ISO 20K, 27001-2013, CMMI5, PCMM3 certifications
• Manage peak resource requirements – leveraging NECTI resources and fast ramp up
• Improved SLA and TAT

NECA’s Clients Supported

Australian Super
Toyota
TASGOV
Sumitomo Rubber
Unity Water
MICAH
DOJ
SHERRIFFS
DTEI-State Gov
Flight Centre
LSC
NECNET
ONRSR
QPS
RACV
RFDS
SAGOV
Detailed Overview – NOC & Service Desk

### Customer Name
NEC Australia

### Start and End Date
November 2017 - Ongoing

### Size of the Project
<table>
<thead>
<tr>
<th>NOC</th>
<th>18 Staff, 1 Project Manager (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Desk</td>
<td>8 Staff, 1 Project Manager (TL)</td>
</tr>
</tbody>
</table>

### Operational Support
| NOC | 24 x 7 | Service Desk | 12 x 5 |

### Key Activities
- PABX devices monitoring
- Server monitoring
- Network devices monitoring & troubleshooting
- Service Desk Issues Support
- Desktop Trouble shooting
- AD Account Issues
- Incident/Problem management through BMC Remedy
- Project management & scheduled Reporting
- Infrastructure setup at NECTI
- KMDB maintenance
- Coordination between internal and external stakeholders
- Conduct and evidence triage and troubleshooting of incident and service requests

### Technology Landscape

#### Tools
- Applications
- Remedy
- Qmaster
- Xtraction
- SharePoint
- SCOM
- BSM/Ops Bridge
- BSM NME
- SAG NMS
- Fortinet
- SCCM

#### Information
- Customer Base
- Knowledge Base Articles
- Work Instructions
- Network Drive Access
- Secure Login
- Training
- Resource Plan
- Quality Checks
- Intranet

#### Infrastructure
- SOE
- Skype
- QMS
- PABX
- QMaster
- Ops Bridge
- HP
- Active Directory
- Remote Support

### Project Scope
- Service Desk Support
- PABX Device Monitoring
- Server Monitoring - SCOM
- Network Management - Performance & Fault Monitoring
The team provides 24/7 monitoring and incident management for multiple customers with varying requirements. Network Monitoring Centre offers the following capabilities:

- 24/7 reactive and proactive monitoring
- End to End Incident Management including carrier engagement
- Monitoring of routers, switches, WAP, PABX, firewall, UPS, servers, applications, web pages
- Level 1 triage of incidents
- Device trending and problem management
- Major outage identification and escalation

Using a variety of world class monitoring toolsets events are proactively managed, resolved or escalated to the appropriate support group. Using ITIL based methodology standard or customised alerts are monitored against pre-set thresholds.

**Supported Platforms**

- Configuration Management (for PABX Alarms)
- Geopatch (PABX call)
- NECARE / Contractor (PABX call based on SLA)
- NECARE for PABX Gateways for main SLA
- NECARE IP ETAC request
- NECARE IP ETAC High PRI
- GEPS NGP for IP NGP only
- OTAC
- OTAC SASC/HEMS (HEM for IP NGP only)
- NMC Configuration Management
- NMC Change Management
- NECARE IP PRI for non-HEM
- NECARE IP PRI for non-HEM

**Team Main Capabilities**

- 24/7 Monitoring
- SPOC for all Customer queries
- Support of Multivendor environments
- Network Device and Server Monitoring
- Security and SIEM Monitoring
- Network & Application Performance Monitoring
- Trending and Problem Management
Team’s objective is to provide high quality technical support services to NEC Australia’s Internal Users.

SD Team offers the following capabilities:

- SPOC ensures accountability for incident management and service requests
- Incident/Problem Management through BMC Remedy
- Resolve incident and service requests at first level including remote desktop and over the phone assistance
- Remote monitoring capabilities of Contact Centre solutions
- KMDB Maintenance
- Coordination between internal and external stakeholders
- Conduct and evidence triage and troubleshooting of incident and service requests
## Office 365 – Technical Service Desk

### Our Portfolio & Service Coverage

<table>
<thead>
<tr>
<th>Exchange Server</th>
<th>SharePoint</th>
<th>Active Directory</th>
<th>Yammer Enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS Exchange and Office 365 Support</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Administer cloud and Office 365 services
- User delegations, disable/enable POP3, IMAP, MAPI.

| AD Support |
- GPO
- Domain Controllers
- OU
- User management

<table>
<thead>
<tr>
<th>Office Mobile Apps</th>
<th>File Storage &amp; Sharing</th>
<th>Public Website</th>
<th>Advance Emails</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office 365 Support</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Manage External Connectivity
- Managing Role Based Access Control
- SIP URI configuration
- Telephony options
- Enabling Users to Lync
- Policy assignment

<table>
<thead>
<tr>
<th>Skype For Business</th>
<th>Site Mailboxes</th>
<th>Voicemail</th>
<th>Self Service Business Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lync Support</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Successfully delivered NEC user migrations on cloud.

| SharePoint Support |
- SharePoint new site/Sub site creation setting up user permissions/profiles in sites
- Configuring timer jobs such as to backup the sites everyday

### Team Main Capabilities

- Handling Microsoft Office 365 issues by NEC users globally
- SPOC for all Office 365 Support Coverage
- Maximize remote delivery of services with 100% Satisfaction Index
- Extensive technical knowledge of Exchange Online and Office 365
- Extensive experience in Migration (on premise to Office 365)

### NECTI Team’s objective is to provide high quality technical support services for Microsoft Office 365 NEC Users Globally.

Global Service Desk Team offers the following capabilities:

- 24*7*365 English Helpdesk Support.
- Delivery from NTI Global Delivery Center based on ITIL Governance Framework.
- Incident/Problem Management through Symphony Tool.
- Remote monitoring capabilities of Contact Centre solutions
- KMDB/FAQ Maintenance
- Coordination between NEC Japan & NES stakeholders
Team’s objective is to provide high quality technical support services to NEC Masterscope customers globally.

Global Service Desk Team offers the following capabilities:

- 24*7*365 English Helpdesk Support.
- Incident/Problem Management through ITSM Tool.
- Resolve incident and service requests at first level including remote desktop and over the phone assistance
- Remote monitoring capabilities of Contact Centre solutions
- KMDB Maintenance
- Coordination between internal and external stakeholders

**What We Do**

**Continuous Operation Improvement**
- Visualize day-to-day operations and standardize IT service processes to achieve continuous improvement in operations and business processes.
- Provide features to enforce corporate policies.

**Improve Efficiency and Quality**
- Implementing a cloud environment offers agility, efficiency and flexibility, allowing a business to react more quickly to changing market and customer needs.

**Monitoring - Maintain System Health**
- Provide integrated monitoring for both on-premise and cloud resources, including servers, storages, network devices, processes and applications.
**Express Cluster- Technical Service Desk**

Team’s objective is to provide high quality technical support services to NEC Express Cluster customers globally.

Global Service Desk Team offers the following capabilities:

- 24*7*365 English Helpdesk Support
- Real Time Remote Support
- Logs Based Support
- Incident/Problem Management through Salesforce ITSM Tool
- Centralized KMDB/ FAQ Maintenance
- Real Time & Historical Reports & Dashboards
- 100% Customer Satisfaction Index
- Coordination between internal and external stakeholders

**Team Main Capabilities**

- Zero downtime Support for all customers
- Extensive Expertise in DR Technologies
- Provide 99.99% availability to mission critical systems
- Support various platforms / applications / configurations
- Immediate support of up-to-date technologies
- HA & DR Support Globally

**We Support- Cross Platforms**

- Express Cluster X
- Linux
- Unix
- HA Series
- DR Series

**Our Concepts**

- Minimize downtime by 100% Availability
- Thorough Japan Quality
- World Wide Helpdesk Adoption
- Helpdesk Support for Small & Large Systems
- Flexible support for system consolidation and modification

**We Support**

- Cross Platforms
  - Express Cluster
  - Unix
  - Linux
  - HA Series
  - DR Series
The team provides 8/5 monitoring and Ticket management for LDB End users. Team is providing Customer support helpdesk to ensure live status of RFIDs tagged containers moving across Western Corridor of India. Supported Region: India

We offers the following capabilities:

- End to End Incident/Problem and Change Management.
- Ticket Management via Remedy Force
- Incident/Problem and Change Management
- RFID Monitoring – Real Time Monitoring of all the RFID Infra across all the Ports, CFS/ICD/Toll Plaza
- NAGIOS Monitoring of Data files
- Coordination between internal stakeholders
- Vendor and KMDB Management
- Reporting and MIS Analytics

Using a variety of world class monitoring toolsets events are proactively managed, resolved or escalated to the appropriate support group. Using ITIL based methodology standard or customised alerts are monitored against pre-set thresholds.

**Team Main Capabilities**

- Certified ITIL Engineers
- SPOC for all Customer queries
- Support of Multivendor environments
- RFID Server and Network Database Server Monitoring
- ITIL Based Methodologies
- Network & Application Performance Monitoring
- Reporting and Analytics

**LDB Operation**

ICT system deployed for LDB project is RFID Technology.
Energy Management System – Network Operations Centre

The team provides 24/7 monitoring for outages, fault, critical events and abnormalities with the Telecom Towers. EMS is the process of monitoring, controlling, and conserving energy.

Energy Management Systems offers the following capabilities:

- Manage and Maintain the EMS Server System
- Alert Management
- Voice/email based support
- Incident/Problem/Change Management
- Vendor Management
- Communications management
- Document Management
- Analysis Reporting
- KMDB Maintenance

EMS enables efficient management of mixed power such as grid and solar by offering high-speed charging and longer battery life and prediction of solar power generation and energy consumption by NEC's state-of-the-art data analytics.

Overview: EMS SYSTEM

Proactive alarm monitoring 24*7*365
SPOC for all Customer queries
Fault Management
Telecom Tower and Server Monitoring
Client/Vendor co-ordination, ticket follow-ups and closure
Analytics & Performance monitoring
Provide 99.95% site uptime availability to EMS systems
The team was providing 8*5 cloud-based services to SWF Users, which support software development projects and system integration projects. Under which it is offering Project management tools & applications to SWF users across the globe. We offers the following capabilities:

- Ticket management
- Providing Cloud-based environment
- Providing Engineering-based platform
- Project and resource management.
- KMDB Maintenance
- SugarCRM Management
- Communication and Coordination with Projects stakeholder

Using a variety of world class monitoring toolsets events are proactively managed, resolved or escalated to the appropriate support group. Using ITIL based methodology standard or customised alerts are monitored against pre-set thresholds.
Yamaha Music office 365 - Bilingual Support

NECTI provided 24*7 multilingual help desk and Level 2 support for Office 365 to Yamaha Music in Japan, North America, EMEA & Asia Pacific. Project was active from NOV-13 to Sep-14.

Multilingual help desk offers the following capabilities:

- Capturing diagnostic information.
- MS Exchange, SharePoint, Lync, Office Pro and Active directory issues handling.
- Complex resolution/complex issue handling.
- High severity resolution.
- Problem management and creating workaround / KMDB / FAQ.
- Escalate/Interact with Microsoft Team and report escalated issues, bugs, if any.
- Lotus to Exchange account migration remotely.
Delivery Through Phased, Proven Approach

Delivery through phased, proven approach to impart benefits over the entire relationship lifecycle

- **Wave 1**
  - Transition
  - Customer value

- **Wave 2**
  - Increasing customer value

- **Wave 3**
  - Process re-engineering
  - Process optimization
  - Cost savings & process standardization

---

**Process**
- Test processes, prove concept
- Maintain quality
- Initial cost savings through arbitrage

**Process + applications**
- Process improvement using Six Sigma and domain expertise
- Knowledge management
- Evaluate technology, automation & consolidation options

**Process + applications + infrastructure**
- Best in class – process and technology optimization
- Consolidation across operations / processes
- Maximize savings through better turn-around and reduced defect rates
NECTI Value Proposition

Project Management

1. 100+ experienced & Certified Project Managers (PMP, Prince 2)
2. All the Project Managers are having close 10000 Man-Months of Project Management Experience

Resource Optimization

1. Day one ready resources with flexibility of quick ramp up
2. Delivery centre located in one of the largest IT hub in the NCR region with high availability of experienced resources
3. 10% of the resources, additionally will act as shadow to ensures Zero Business Impact

Aligning with the NEC Standards & Processes

1. Compliant to NEC Standards & Practices
2. CMM/CMMI Level 5 & PCMM certified processes
3. ITIL, ISMS & ITSM complaint processes
4. Quality management and quality assurance based on ISO 9000

NTI HR Academy

1. Robust induction program for on-boarding new resources & dedicated training arm NTI Training Academy for Training on an on-going basis
2. Cultural sensitization of resources before on-boarding
3. Continuous Improvement Program ensuring Lower Attrition Rate
Value Life Cycle

Efficiency

Consolidate (0-12 months)
- Improved SLA’s
- Improved 24/7 Coverage
- Attain cost and resource optimization
- Operational Efficiency in terms of resource & infra readiness

Optimize (12-24 months)
- Peak Ramp Up
- Eliminate Need for manpower
  - Reduction in Tickets through effective Problem Management (Root Cause)
  - Automation of pro-active ticketing
- Optimize Investment in technology
  - Data Center consolidation
  - Bandwidth optimization
- Initiation of Stage 2 support deployment

Effectiveness

Optimize (12-24 months)
- Peak Ramp Up
- Eliminate Need for manpower
  - Reduction in Tickets through effective Problem Management (Root Cause)
  - Automation of pro-active ticketing
- Optimize Investment in technology
  - Data Center consolidation
  - Bandwidth optimization
- Initiation of Stage 2 support deployment

Strategic

Excel (24 months onwards)
- Manage End customer expectations by Clear “Productization” of Services
- Better Communicate Value of Services to NEC A & end customers
- Increased Range of Services – Support to Packaged Application, IT & Telecom products
Thanks