Joyent Support Procedure

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1. Incident Definitions

Sev 1: Customer's production use of the Joyent Software is stopped or so severely impacted that it cannot continue to operate, and the Customer has experienced a complete loss of the production service. The operation is mission critical to the business and the situation is an emergency.

Sev 2: Customer is experiencing a severe loss of service. Important features are unavailable with no acceptable workaround; however, operations can continue in a restricted fashion.

Sev 3: Customer is experiencing a minor loss of service. The impact is an inconvenience, which may require a workaround to restore functionality.

Sev 4: Customer is requesting information, a product enhancement, or documentation clarification regarding Joyent Software.

2. Customer Roles and Responsibilities

Level 1 Support
The organization providing level 1 support commonly resides in the Operations group and is typically identified as a Call Center, Help Desk, Service Desk or other similar name.

Roles

Owner of the Incident Management (IM) process. Level 1 support ensures that a well-defined, consistently executed, properly measured and effective IM process is established and maintained.

Receive and manage all customer service issues. Level 1 support is the single point of contact for reporting service issues, and acts as end-user advocate to ensure that service issues are resolved in a timely fashion.

First line of support. The level 1 organization makes the first attempt to resolve the service issue reported by the end user.

Responsibilities

Accurately record incidents. Level 1 support ensures that an incident is properly logged into the incident management system. In doing so, it must:

Ensure that the ticket contains an accurate and properly detailed description of the problem

Ensure that the severity/priority classification is correct

Determine the nature of the problem, business partner contacts, impacts and expectations

Own every incident. As the end-user advocate, level 1 support owns the successful resolution of every incident. It ensures that the IM process resolves the issue in a timely fashion by:

Developing and managing a resolution action plan

Initiating specific assignments for staff and business partners

Escalating the incident as required when resolution targets are missed insuring internal communication occurs according to defined service targets

Championing the interests of the involved business partners

Level 1 support uses the problem management database to match incidents with known errors and to apply previously identified workarounds to resolve incidents. Its target is to resolve 80 percent of incidents. The remaining incidents are escalated to level 2

Continually improve the IM process. As owner of the IM process, level 1 support ensures that the process and capabilities are adequate, and are improved when necessary by: Evaluating the effectiveness of the IM process and supporting mechanisms such as reports, communication formats/messages, and escalation procedures

Developing department-specific reports and procedures

Maintaining and improving communication and escalation lists

Participating in the problem review process

Capabilities

Interpersonal skills paramount; technical skills secondary.

Level 1 support personnel are primarily involved in triage and management of problems. Very little technical troubleshooting should occur at this level of support.

Ability to apply "canned" resolutions. Level 1 personnel should have the ability to recognize patterns of symptoms, apply search tools to identify previously developed solutions, and help end-users implement the solution.

Level 2 Support

Also typically residing in the Operations group, level 2 support organizations are commonly called Command Centers, Network Operations Centers, or Distributed Computing Control Centers.

Roles Troubleshoot incidents. Level 2 support investigates, diagnoses and resolves most incidents that are not cleared by level 1 support. These incidents tend to be indicative of new problems.

Owner of PM process. Level 2 support ensures that a well-defined and effective problem management process, as previously defined, is in place.

Proactive management of the infrastructure. Level 2 support uses tools and processes to ensure that problems are identified and resolved before incidents occur.

Responsibilities

Resolve incidents escalated from level 1. Whereas level 1 is expected to resolve 80 percent of incidents, level 2 support is expected to resolve 75 percent of incidents that are escalated to them, for an overall total of 15 percent of the incidents reported to level 1 support. The unresolved incidents are escalated to level 3 support.

Determine root cause of problems. Level 2 support determines the root cause of problems and identifies workarounds or permanent fixes. They engage and manage other resources as necessary to determine the root cause. They escalate problem resolution to level 3 support when the root cause is an architectural or technical issue that exceeds their skill-set.

Champions the implementation of workarounds and permanent fixes. Level 2 support ensures that projects are raised within development organizations to implement permanent fixes to known errors. They ensure that workarounds are documented and communicated to level 1 support staff and implemented in tools.

Proactively monitor the infrastructure. Level 2 attempts to identify problems before incidents occur by monitoring infrastructure components and taking corrective action when defects or problematic trends are discovered.

Proactively examine incident trends. Past incidents are examined to determine if there are underlying problems that need to be fixed before future incidents occur. Incidents that are closed without being matched to a known problem are also examined for potential underlying problems.

Continually improve the PM process. As owner of the PM process, level 2 support ensures that the process and capabilities are adequate, and improved

when necessary. They lead the problem review process to determine lessons learned and ensure that process controls, such as meetings and reports, are adequate

Capabilities

Technically competent with reasonable interpersonal skills. Level 2 support staff should have a range of technical skills across the technologies that are supported, including networks, servers and applications. A common deficiency in level 2 support organizations is in operating system or application expertise Further, there should not be a significant skill gap between the level 2 and level 3 organizations. Some level 2 staff should be as skilled as level 3 support staff.

Network, server and application knowledge. The level 2 organization needs to be able to resolve incidents and problems across the gamut of technologies at use in the organization.

Level 3 Support

This level of support typically resides in the Engineering and/or Development groups within IT. These organizations are commonly called Engineering, Architecture, Network Integration, or Applications Development.

Roles

Planning and design of IT infrastructure. Typically, the level 3 support group has a minor role in IM and PM as these organizations are chartered primarily with planning and design of the IT infrastructure. As such, their goal is to implement defect–free infrastructure that is not the source of problems and incidents.

Last escalation group. If an incident or problem exceeds the technical capabilities of the level 2 support group, the level 3 support group takes responsibility to reach resolution.

Responsibilities

Resolve incidents escalated from level 2. As most incidents are caused by previously known errors, very few incidents (5 percent) should percolate up through level 2 support and into the level 3 organization. Level 3 is responsible for resolving all incidents that percolate up.

Participate in PM activities. Level 3 support are involved in finding root cause, workarounds, and permanent fixes.

Implement permanent fixes to remove errors from the infrastructure. Level 3 has a significant role in planning, designing and implementing projects that provide permanent fixes to the infrastructure. These projects must be prioritized along with the normal development work to achieve a desired balance.

Capabilities Subject matter experts. Level 3 support teams should are subject matter experts who plan and design the IT infrastructure.

3. Customer Communication to Joyent Support

Response and Resolution

This table defines to the response and resolution times between Customer Support and Joyent Support. It will "wrap" a set of documented procedures around the internal ticketing. **Weekly Reviews and edits of the open/in-progress tickets will be conducted by the Support and Ops teams**

"Resolution" does not necessarily mean the problem is completely resolved. SLA resolution times requires that one or more of the following activities are complete:

- Temporary work around/fix to restore the business service
- Permanent fix (may be a result of root cause analysis of an issue)
- Issue escalated to vendor
- Action plan is created to address the trouble ticket

Severity	SmartSupport Priority	Definition	Response	Resolution	Notes
Sev 1	Urgent	See above	1 hour, 24x7	4 Hours	Issues submitted as Blocker should be followed up on by phone to ensure receipt of the issue.
Sev 2	High	See above	3 hours, 8x5	24 Hours	These are the main issues we need to resolve. If support believes it is critical and operations disagrees - we need to communicate the priority changes
Sev 3	Normal	See above	5 hours, 8x5	48 Hours	
Sev 4	Low	See above	End of next business day	5 days	Pull it into another ops project as possible

4. Joyent Roles and Responsibilities

Roles

>**Owner of the Incident Management (IM) process.** Joyent support ensures that a well-defined, consistently executed, properly measured and effective IM process is established and maintained.

>**Receive and manage all Customer service issues.** Joyent support is the single point of contact for reporting service issues, and acts as end-user advocate to ensure that service issues are resolved in a timely fashion.

>**Troubleshoot and Triage incidents.** Joyent support investigates, diagnoses and resolves incidents reported by Customer.

>**First line of support to Customer.** Joyent Support organization makes the first attempt to resolve the service issue reported by Customer

>**Product Engineering.** Primarily responsible for Product engineering, Quality Assurance and Debug.

Responsibilities

>**Accurately record incidents.** Joyent support ensures that an incident is properly logged into our incident management system.

>**Own every incident.** As the end-user advocate, Joyent support owns the successful resolution of every incident. It ensures that the IM process resolves the issue in a timely fashion by:

>**Implement permanent fixes to remove errors from the infrastructure.** Joyent Engineering's role is in the planning, designing and implementing products and maintenance releases to the product.

5. Communication Channels

Documentation

Product Documentation is available at - http://sdcdoc.joyent.com/sdcdoc/display/sdc/SmartDataCenter+Home

Support

Technical support can be obtained by registering at with our help desk system at http://smartsupport.joyent.com or via email to smartsupport@joyent.com . If you use an email to initiate a support request you will receive registration instructions by return email.

Support requests are grouped together by organisation based on your email domain. This will enable everyone in the customers organisation to see and amend all tickets raised by any person. Please ensure you register using your companies email address.

Technical support can also be obtained by calling one of the following numbers. All numbers are available world wide.

North America: +1 (415) 787-4810
EMEA: +44 203 322 1819

Severity 1 Issues

Severity 1 issues should be raised at smartsupport.joyent.com and also by telephone to one of the numbers below

Contacts

If further clarification of any of the contents of this document is required or you wish to contact someone directly to obtain support please use the contact details of the following Joyent personnel:

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Additional information about Joyent, Inc can be obtained at www.joyent.com.