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EXHIBIT 1

Description of Services

Etrali North America, LLC (“Etrali NA”) provides compliance and unified communications solutions to the global financial community. The suite of industry-specific hardware, services and trading solutions offered by Etrali NA include a very limited point-to-point private line communications component. While the vast majority of Etrali NA’s resold private line services are provided on an interstate and international basis, they also include a limited amount of intrastate private line services to business customers in Illinois.

Etrali NA and its parent company, Etrali S.A., were recently indirectly acquired by IPC Systems Inc. (“IPC Systems”), a leading global provider of specialized communications solutions for the financial services community. The network-related services provided by Etrali NA, now an indirect wholly-owned subsidiary of IPC Systems, are being integrated into the platform of another wholly-owned, indirect subsidiary of IPC Systems, IPC Network Services, Inc. (“IPC Network Services”). This migration is expected to be completed within several months. IPC Network Services was granted a certificate of interexchange authority by the Illinois Commerce Commission (“Commission”) in Docket No. 03-0637.

Prior to the acquisition, Etrali NA had regarded itself as an end user of the communications services purchased from wholesale communications providers, which were offered as one of Etrali NA’s industry-specific services. Etrali NA was treated as an end user by its wholesale communications providers, which maintained responsibility for assessing applicable regulatory fees and surcharges to Etrali NA and remitting such fees and surcharges to the appropriate governmental authorities. Now that Etrali NA has become an indirect wholly-owned subsidiary of IPC Systems, the instant application for authority to provide resold telecommunications services is being filed, consistent with IPC’s policy to have subsidiaries obtain certification where available under applicable law.

EXHIBIT 2

Contact Information

(a) Issues related to processing this application should be directed to:

Andrew M. Klein
KLEIN LAW GROUP ^{PLLC}
1250 Connecticut Avenue N.W.
Suite 200
Washington, D.C. 20036
Tel: (202) 289-6955
Email: AKlein@KleinLawPLLC.com

(b) Designated agent in Illinois:

United States Corporation Company of Illinois
801 Adlai Stevenson Drive
Springfield, IL 62703
Tel: 1-800-858-5294

(c) Business Operations contact information:

i. Contact for consumer issues:

Steve Andreassi
1 State Street Plaza
12th Floor
New York, NY 10004
Tel: (212) 709-1153
Email: Steve.andreassi@ipc.com

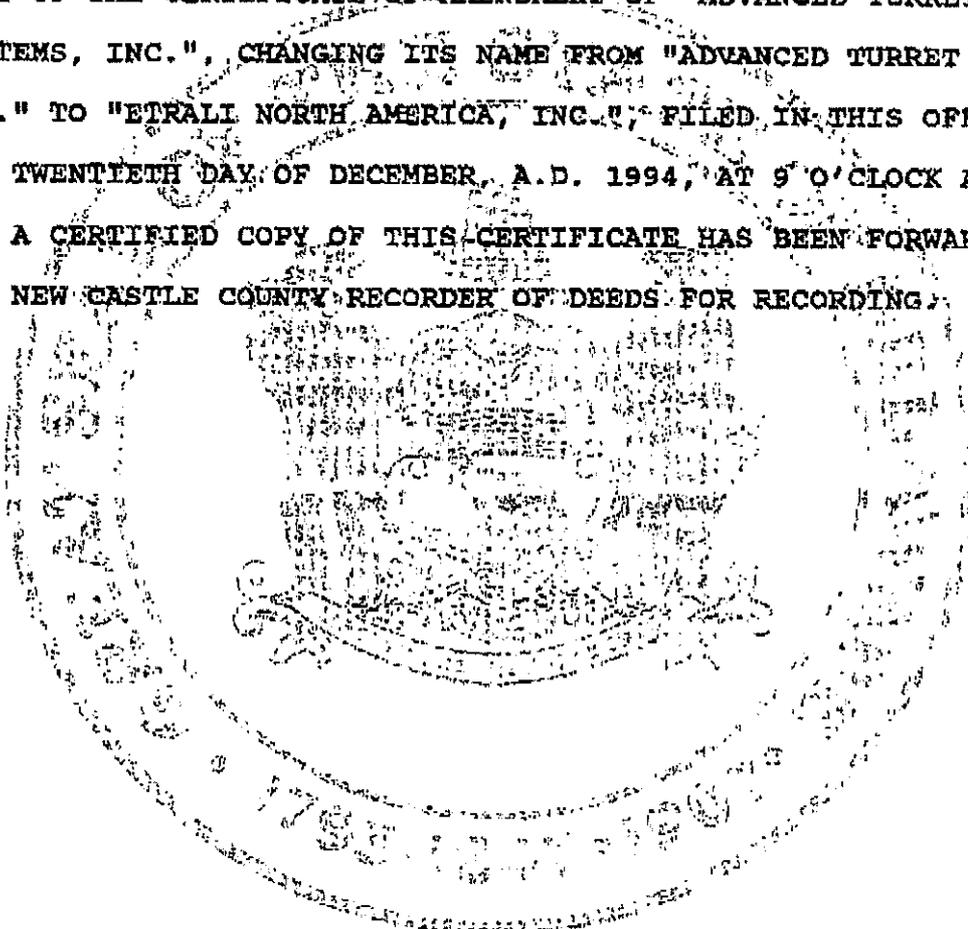
- ii. Contact for customer complaint resolution: Steve Andreassi, as provided above.
- iii. Contact for technical and service quality issues: Steve Andreassi, as provided above.
- iv. Contact for “tariff” and pricing issues: Steve Andreassi, as provided above.
- v. Contact for 9-1-1 issues: Steve Andreassi, as provided above.
- vi. Contact for security/law enforcement issues: Steve Andreassi, as provided above.
- vii. Contact for regulatory issues: Steve Andreassi, as provided above.

EXHIBIT 3
Articles of Incorporation

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "ADVANCED TURRET SYSTEMS, INC.", CHANGING ITS NAME FROM "ADVANCED TURRET SYSTEMS, INC." TO "ETRALI NORTH AMERICA, INC.", FILED IN THIS OFFICE ON THE TWENTIETH DAY OF DECEMBER, A.D. 1994, AT 9 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.



Edward J. Freel

Edward J. Freel, Secretary of State

2142278 8100

944250655

AUTHENTICATION: 7349898

DATE: 12-22-94

AMENDMENT CERTIFICATE TO
CERTIFICATE OF INCORPORATION OF
ADVANCED TURRET SYSTEMS, INC.

Advanced Turret Systems, Inc., a corporation organized and existing under the laws of Delaware (the "Corporation"), hereby certifies that:

1. The Corporation has capital stock, and the following amendment has been duly adopted in accordance with the provisions of Sections 242 and 228 of the Delaware General Corporation Law by the sole stockholder of the Corporation.

2. The Certificate of Incorporation of the corporation is hereby amended as follows:

(a) Article First of the Certificate of Incorporation is amended by deleting Article First thereof in its entirety and substituting in lieu thereof the following language:

"First: The name of the corporation is ETRALI NORTH AMERICA, Inc. (hereinafter called the "Corporation");

(b) The heading of the Certificate of Incorporation is amended so as to read:

"CERTIFICATE OF INCORPORATION OF ETRALI NORTH AMERICA, INC."

I, the undersigned, being the President of the Corporation, do make this Certificate of Amendment, hereby declaring and certifying, under penalties of perjury, that this is my act and deed and the facts herein stated are true, and accordingly, I have hereunto set my hand this 12th day of DECEMBER, 1994.

Attested by:



Sylvie Quanonou
Secretary



President

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 09:00 AM 12/20/1994
944250655 - 2142278

CERTIFICATE OF AMENDMENT OF
APPLICATION FOR AUTHORITY

F950110000652

OF

Advanced Turret Systems, Inc.

UNDER SECTION 1309 OF THE BUSINESS CORPORATION LAW

Pursuant to the provisions of Section 1309 of the Business Corporation Law, the undersigned corporation hereby makes the following statements for the purpose of amending its "Application for Authority".

1. The name of the corporation as it appears on the index of names of existing domestic and authorized foreign corporations of any type or kind in the Department of State, Division of Corporations, is Advanced Turret Systems, Inc.
2. It is incorporated under the laws of Delaware.
3. The date it was authorized to do business in New York was May 3, 1988.
4. The "Application for Authority" is amended to change the name of the corporation from Advanced Turret Systems, Inc. to Etrali North America, Inc.; said change has been effected under the laws of the jurisdiction of its incorporation on December 20, 1994.

IN WITNESS WHEREOF, Etrali North America, Inc., the corporation hereinbefore mentioned and described has caused this certificate to be signed in its name by its President this 12th day of December, 1994 and the statements contained therein are affirmed as true under penalties of perjury.

ETRALI NORTH AMERICA, INC.

By: 

Henri Haude, President

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Delaware

PAGE 2

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE DO HEREBY CERTIFY THAT THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF FORMATION OF "ETRALI NORTH AMERICA, LLC" FILED IN THIS OFFICE ON THE THIRTY-FIRST DAY OF DECEMBER, A.D. 2004, AT 8:56 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



2142278 8100V

040956450

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 3589614

DATE: 12-31-04

State of Delaware
Secretary of State
Division of Corporations
Delivered 09:05 AM 12/31/2004
FILED 08:56 AM 12/31/2004
SRV 040956450 - 2142278 FILE

CERTIFICATE OF FORMATION
OF
ETRALI NORTH AMERICA, LLC

This Certificate of Formation of **ETRALI NORTH AMERICA, LLC**, is being duly executed and filed by the undersigned, as an authorized person, to form a limited liability company under the Delaware Limited Liability Company Act.

FIRST: The name of the limited liability company formed hereby is **ETRALI NORTH AMERICA, LLC** (hereinafter referred to as the "Company").

SECOND: The address of the registered office of the Company in the State of Delaware is c/o Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware, County of New Castle, 19801.

THIRD: The name and address of the registered agent for service of process on the Company in the State of Delaware is c/o Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware, County of New Castle, 19801.

FOURTH: The effective date of the Certificate of Formation is December 31, 2004.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Formation this 30th day of December, 2004.

By: 
Name: Danielle AGUTO
Title: Authorized Person

State of Delaware
Secretary of State
Division of Corporations
Delivered 09:05 AM 12/31/2004
FILED 08:56 AM 12/31/2004
SRV 040956450 - 2142278 FILE

CERTIFICATE OF CONVERSION

CONVERTING

ETRALI NORTH AMERICA, INC.
(a Delaware corporation)

INTO

ETRALI NORTH AMERICA, LLC
(a Delaware limited liability company)

under

Section 266 of the Delaware General Corporation Law and
Section 18-214 of the Limited Liability Company Act
of the State of Delaware

The undersigned, DO HEREBY CERTIFY that:

FIRST: The name of the corporation immediately prior to filing this Certificate is **ETRALI NORTH AMERICA, INC.** (the "Corporation"). The name under which the Corporation was formed was **ATS, Inc.**

SECOND: The Certificate of Incorporation of the Corporation was filed with the Secretary of State of Delaware on October 30, 1987.

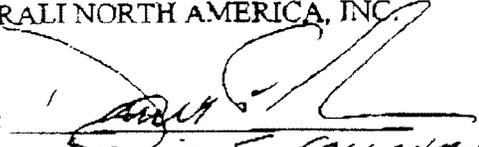
THIRD: The name of the limited liability company into which the Corporation shall be converted is **ETRALI NORTH AMERICA, LLC.**

FOURTH: The conversion has been approved in accordance with the provisions of Section 266 of the Delaware General Corporation Law.

FIFTH: The effective date of the conversion is December 31, 2004.

IN WITNESS WHEREOF, the undersigned has caused this certificate to be signed this 30th day of December, 2004.

ETRALI NORTH AMERICA, INC.

By: 
Name: Daniel F. Callahan
Title: EVP

ETRALI NORTH AMERICA, LLC

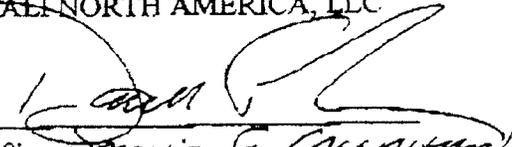
By: 
Name: Daniel F. Callahan
Title: EVP

EXHIBIT 3

Certificate of Authority to Transact Business in Illinois



OFFICE OF THE SECRETARY OF STATE

MARCH 02, 2016

JESSE WHITE • Secretary of State

0560062-6

UNITED STATES CORORATION COMPA
801 ADLAI STEVENSON DR
SPRINGFIELD, IL 62703-0000

RE ETRALI NORTH AMERICA, LLC

DEAR SIR OR MADAM:

IT HAS BEEN OUR PLEASURE TO APPROVE YOUR REQUEST TO TRANSACT BUSINESS IN THE STATE OF ILLINOIS. ENCLOSED PLEASE FIND THE APPROVED APPLICATION FOR ADMISSION.

PLEASE NOTE! THE LIMITED LIABILITY COMPANY MUST FILE AN ANNUAL REPORT PRIOR TO THE FIRST DAY OF THIS MONTH OF QUALIFICATION NEXT YEAR. FAILURE TO TIMELY FILE WILL RESULT IN A \$300 PENALTY AND/OR REVOCATION. A PRE-PRINTED ANNUAL REPORT WILL BE MAILED TO THE REGISTERED AGENT AT THE ADDRESS ON OUR RECORDS APPROXIMATELY 45 DAYS BEFORE THE DUE DATE.

MANY OF OUR SERVICES ARE AVAILABLE AT OUR CONTINUOUSLY UPDATED WEBSITE. VISIT WWW.CYBERDRIVEILLINOIS.COM TO VIEW THE STATUS OF THIS COMPANY, PURCHASE A CERTIFICATE OF GOOD STANDING, OR EVEN FILE THE ANNUAL REPORT REFERRED TO IN THE EARLIER PARAGRAPH.

SINCERELY YOURS,

A handwritten signature in cursive script that reads "Jesse White".

JESSE WHITE
SECRETARY OF STATE
DEPARTMENT OF BUSINESS SERVICES
LIMITED LIABILITY DIVISION
(217) 524-8008

EXHIBIT 4

Managerial Information

Officers and Directors:

Neil Barua

President

Harborside Financial Center

3 Second Street Plaza 10

15th Floor

Jersey City, NJ 07311

Tel: (201) 253-2000

Neil Barua is the President of Etrali NA and the Chief Executive Officer of IPC. Previously, Barua was an Operating Partner at Silver Lake Partners, a leading technology focused private equity firm. Prior to Silver Lake, Barua served as Operating Advisor at private equity firm Francisco Partners. Barua's management experience includes his role on the executive leadership team that took telecommunications company Global Crossing through a restructuring and consequent sale to Level 3 Communications. Barua held several leadership positions at Global Crossing around the world, including Managing Director of its \$700 million+ enterprise services division, where he led the team to significant growth. Before Global Crossing, he worked at Asia Global Crossing in Hong Kong and was a key participant in its \$400 million initial public offering. Barua received a BS in Finance and Economics from the Stern School at New York University with a minor in Political Science.

Ben Chrnlich

Executive Vice President and Chief Financial Officer

Harborside Financial Center

3 Second Street Plaza 10

15th Floor

Jersey City, NJ 07311

Tel: (201) 253-2000

Ben Chrnlich is the Executive Vice President and Chief Financial Officer of Etrali NA and is IPC's Senior Vice President, Managing Director. Previously, Chrnlich was a Managing Director at MSCI, leading global financial planning and analysis. Prior to MSCI, Chrnlich was Senior Vice President and Chief Financial Officer of NYSE Technologies. Chrnlich's earlier experience includes working at Lehman Brothers, Charles Schwab and PricewaterhouseCoopers. He has worked with many leading investment banks, market centers and financial technology organizations. Chrnlich is a member of the American Institute of Certified Public Accountants and is the National Board Chair of America SCORES. Chrnlich earned a BS in Accounting from Lehigh University and an MBA from the University of Notre Dame.

Darren Alfano
Vice President and Treasurer
Harborside Financial Center
3 Second Street Plaza 10
15th Floor
Jersey City, NJ 07311
Tel: (201) 253-2000

Darren Alfano is the Vice President and Treasurer of Etrali NA and is IPC's Senior Vice President of Finance, Global Corporate Controller and Treasurer. Previously, Alfano was Vice President and Corporate Controller, and held the positions of Director of Finance and Corporate Controller and divisional finance positions since joining IPC in 1995. Alfano's prior experience included 3 years in public accounting. Alfano holds an M.B.A. from Fordham University, a B.S. in Accounting from Binghamton University, and is a certified public accountant.

Doug Kortrey
Vice President and Secretary
Harborside Financial Center
3 Second Street Plaza 10
15th Floor
Jersey City, NJ 07311
Tel: (201) 253-2000

Doug Kortrey is the Vice President and Secretary of Etrali NA, as well as IPC's Head of Global Legal and Corporate Secretary since May 2015. Previously, Kortrey was IPC Vice President of Legal Affairs for the Americas since 2009 and also held the role of corporate counsel since joining IPC in 2007. Kortrey has been providing advice to innovators of voice and video technology for approximately 20 years. Prior to joining IPC, Kortrey served in various capacities at RCN, Inc., a facilities-based provider of cable television, high speed internet and telephone service to residential and business customers, and spend 6 years in private practice. Kortrey earned a B.A. from Rutgers University and a J.D. from Seton Hall Law School.

EXHIBIT 5

Other Jurisdictions Where Applicant Provides Service

Etrali NA also provides resold domestic and international point-to-point private line services in California, Connecticut, Massachusetts, New Jersey, New York, and Texas.

EXHIBIT 6

Billing

- 1. How will Etrali bill for its service(s)? Etrali NA bills clients in advance on a monthly basis.**

EXHIBIT 7

Complaint Handling Procedure

1. How does Etrali NA propose to handle service, billing, and repair complaints? (At a minimum, describe Etrali NA's internal process for complaint resolution, the complaint escalation process, and the timeframe and process by which the customer is notified by Etrali NA that they may seek assistance from the Commission.)

Etrali NA proposes to handle customer complaints according to the same process adopted by its affiliate IPC Network Services, which is set forth below.



IPC Network Services Incident Fault

Management Process

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1. OVERVIEW AND SCOPE

This document details the steps, processes and interactions required by GSOC for logging and tracking Network Services faults reported by IPC customers or IPC internal staff. The document also details the process for engaging IPC third party service providers for resolving Network Services faults reported by IPC Network Services Customers.

This is the agreed process that the GSOC should follow for Incident Fault Management. There will be, however, occasions where this process cannot be followed fully due to operational restraints outside of GSOC's or Network Service influence. All parties need to be aware and accept this.

2. DEPENDANCIES/CONSTRAINTS

Network Services Technicians must hand over tickets with the relevant information for GSOC Analysts to complete their tasks for a ticket. The relevant information must at a minimum include what action has been taken, what the results of said action were, what are the next actions required, who is that next action on and finally who has taken any of the actions so far.

3. ASSUMPTIONS

New staff for IPC GSOC will be trained to a sufficient level, including hands on training, mentoring and practical overviews.

IPC GSOC Management Staff will supply all relevant logons and permissions for new members of GSOC team to use Remedy/Orion.

4. INTRODUCTION

This document details at high level the global fault incident management processes that should be followed when an IPC Network Services customer or IPC internal staff reports a fault incident via the IPC GSOC. The document also contains a workflow diagram. A detailed user guide that supports this process can be found under the network services GSOC shared documents below:

<http://ipchome/sd/GSOC>

5. PURPOSE

The purpose of this document is to define the operational and service management procedures that the IPC GSOC operates. It should specifically be used as a reference guide for the global GSOC, as well as other IPC Ops personnel wishing to understand how GSOC tracks and progress fault incidents. The document should also form an integral part of any GSOC induction/training process.

The process is designed to ensure that any fault incident is responded to and resolved as quickly as possible, and that a high level of communication is maintained between all affected users and support teams at any one time. This is effectively achieved using the Remedy service management system.

The IPC GSOC is partly measured on a Mean Time to Repair (MTTR) target of 4 hours from incident logging.

6. THE IPC GLOBAL SOLUTIONS OPERATIONS CENTRE (GSOC)

GSOC Hours of Operation

The GSOC operates as a single helpdesk, but are geographically located in London, Singapore and New York to provide 24 x 7 x 365 global support. The IPC GSOCs are connected via line networking so that any calls received out of regional working hours are automatically directed to the other, open GSOC centres, via follow the sun.

GSOC Key Responsibilities

- Single point of contact for all IPC customers
- Incident management, including incident logging in Remedy
- Coordinate service partners & suppliers
- Customer communication
- Post mortem creation and distribution
- Service Reporting
- Advanced Fault Management (AFM) management

- Scheduled Maintenance logging and notification
- Network Monitoring

7. THE PROCESS

A Customer of Network Services can report a fault via any of the following methods:

- Telephone Call
- Email
- Customer Portal

IPC Internal staff may also report a fault to the GSOC via any of the following methods:

- Telephone Call
- Email
- Network/proactive monitoring

The GSOC Analyst receiving the report of a fault will process said fault and open a ticket in the Remedy System. The GSOC Analyst must obtain from the customer the following information as a minimum:

- The circuit information (this could be UCN, Carrier Reference or Circuit Reference)
- The customer contact details (this would include Name, Contact Number, Site Location)
- Which service is affected if a multi-circuit is being reported
- The fault conditions being experienced. Would need to establish which end is hearing noise/echo or phantom ringing
- Confirm with the Reporting End Customer if intrusive testing is allowed
- Confirm with the customer who IPC should test with (ideally this will be a technical contact)

Note: Where possible it would also be helpful if the GSOC could obtain B end contact information from the customer. If not then the GSOC should seek this information in Orion.

Once opened the GSOC Analyst will provide the Customer with a Remedy Ticket reference number and must time stamp the customer update on Remedy once this ticket is opened. It is important to stress that throughout this process updating the systems and the customer is of the utmost importance and this must be done in a timely fashion throughout the fault process regardless of where the ticket may sit. For example the ticket may be with the NS Tech Group however it is still the GSOC Analysts responsibility to continue to track the ticket and provide regular updates to the customers based on the severity table detailed at the end of this document.

The GSOC Analyst should check the details on their system to see if this is a chronic issue that may need immediate escalation. Chronic issues are identified as the same fault occurring on the same facilities during the below indicated time frames:

- 3 outages or more over a 30 day period,

- 3 outages or more over a 90 day period,
- 6 outages or more over previous 180 days

Chronic issues are escalated immediately. The escalation process is detailed at the end of this document.

The GSOC Analyst will then confirm via Remedy or ORION that the service reported is an On-Net or Off-Net service.

On-Net and Off-Net are defined as:

- On-Net – Both ends of the service are delivered by IPC Infrastructure
- Off-Net – Both ends of the service are delivered by 3rd party infrastructure

Some services are a combination of both usually referred to as Off-Net/On-Net or On-Net/Off-Net – One end of the service is delivered by IPC and one end by 3rd party infrastructure. It is dependent on which end of the service is affected as to how the service will be dealt with in this process document.

If the service is an **Off-Net** service the GSOC Analyst will report the fault to the Carrier. The GSOC Analyst will monitor the faults progress with the Carrier and escalate the fault when required as per the Carriers SLA that is in place. Details of the SLA's for Carriers can be found at the GSOC shared documents location on the Intranet detailed below:

<http://ipchome/sd/GSOC>

Any testing relating to Off-Net Services will be performed externally by the Carrier. Since IPC has no visibility of these services IPC personnel is not typically required to attend these tests. If, on the rare occasions a Carrier does require some assistance from IPC, then the GSOC should coordinate the test and the IPC Technical resources.

If the service is an **On-Net** service the GSOC Analyst will firstly need to determine how old the service is.

In NA/ASIA PAC If the service is younger than seven days the ticket is placed in the Network Services Installs queue as assigned for action.

In EMEA If the service is younger than seven days the ticket is placed in the Network Services UK Delivery queue as assigned for action.

If the fault is older than seven days the GSOC Analyst will then check if the service meets the following criteria:

- The Service is on the DNX
- Service is reported as Hard Down
- Service is reported as One Way Transmission

If the fault meets these criteria then the GSOC Analyst will then check to see if First Line Technical Support (FLTS) can be performed on the service. (Note: Currently this is only applicable in the EMEA

region. All other GSOC regions bypass this step). The GSOC Analyst will WIP the ticket and perform first level testing on the service. The GSOC Analyst will test both the A and B end of the service and update the Remedy Ticket with said test results. If the Service tests good both ways the GSOC Analyst will then update the customer and confirm with the customer the closing of the Remedy Ticket.

If the service does not meet these criteria or if the Service does not test good both ways following FLTS the GSOC Analyst will assign the fault and ticket to the Network Services Technician Group.

The Network Services Technicians will now follow their process for resolving a fault with Customers. If the Network Service Technicians have resolved the fault then the ticket will be passed back to the GSOC with detailed notes of the troubleshooting action taken. A Technician should not pass a ticket back to the GSOC unless the fault has been resolved or Carrier testing is required.

In normal situations, if Customer Testing is necessary then the IPC Technicians should make an initial attempt to co-ordinate the test resources required however if for some reason the Technician cannot get hold of the Customer the ticket may be passed back to the GSOC Analyst for the GSOC Analyst to try and establish contact. In crisis situations each group will support one another as needed. Once contact is achieved the call and ticket should be passed back to the technician for resolution of the fault.

If Carrier intervention is required the ticket is passed back to the GSOC with detailed instructions of which link is to be reported to the carrier. The Network Services Technicians will also need to confirm if the service is allowed to be tested intrusively or non-intrusively. (See Glossary description at the end of this document for an explanation of these test types). The GSOC Analyst cannot accept the ticket without this information.

The GSOC Analyst will then report the fault to the carrier. The ticket must be WIP'd in the Remedy GSOC queue and the Carrier must be chased by the GSOC Analyst for updates at set intervals depending on the severity of the fault and Carrier SLA. (See Appendix for list of severities and update requirements). If at any point the Carrier requires testing to be carried out between themselves and IPC then the GSOC Analyst should pass the carrier request to test to the Network Services Technicians. If the Carrier resolves the issue and the Network Services Technicians have verified this Carrier resolution the GSOC analyst will update the customer and confirm with the customer the closing of the Remedy Ticket.

Although the GSOC Analysts is required to report the fault to the Carrier they are not required to be involved in any calls requiring testing between Carriers/Customers or Engineers. This applies for both On and Off Net Services.

If the Carrier finds no fault with the service they will contact the GSOC and the GSOC Analyst will pass the call and ticket to the Network Services Technicians who will verify with the Carrier the status of the Fault. Once resolved the Network Services Technicians will verify with the customer that the issue is resolved and pass the ticket back to the GSOC and the Analyst will then confirm with the customer the closing of the Remedy Ticket.

If the fault has been resolved by NS but we are awaiting customer response the ticket will be chased by the GSOC analyst up to a maximum of three times. If there is still no response the ticket is resolved by

the GSOC analyst and will be autoclosed within 48 hours by the Remedy system. The last contact with the customer should inform them of this action.

8. GLOSSARY OF TERMS

Term	Definition
Global Solutions Operations Centre (GSOC)	IPC 24x7 Call Centre
ORION	Circuit design and inventory System
REMEDY	Incident Management System
On-Net	Service delivered to customer premise via IPC infrastructure
Off-Net	Service delivered to customer premise via 3 rd party infrastructure not connected to IPC POP
POP	Point of Presence
DNX	Cross-connect system
WIP	Work in Progress
WIP'd	Action of placing a ticket into WIP Status
Intrusive Test (Service disrupting)	Customer allows Carrier/IPC to break into service in working hours
Non-Intrusive (Non-Service disrupting)	Customer does not allow Carrier/IPC to break into service in working hours

9. GSOC SEVERITY LEVELS AND UPDATE REQUIREMENTS

IPC has developed a set of fault management procedures which are designed to ensure that any fault is responded to and resolved as quickly as possible, and that a high level of communication is maintained between all affected customers and support teams at any one time.

To achieve this, all faults are assigned a Severity Level according to urgency by the GSOC at the point of logging. This Severity Level then carries a set of minimum required response and update times, which are monitored and controlled by the GSOC.

The following table gives the definition of each Severity Level and some examples of typical faults.

IPC Severity Level	Definition	Example
Sev 1+	Complete loss of an on-net, dedicated IPC service, E1/T1 or above, affecting all users.	Major network failure without redundancy. Heavy errors or packet loss rendering service unusable. Requires immediate authorization to conduct testing as necessary.
Sev 1	A high-impact problem severely impacting functionality and/or impairing business. Services are available in a restricted fashion. Complete failure of a single, trader voice private line. Complete failure of an off-net IPC service.	Continuous errors, latency or packet loss. Failure of a redundant link that is not service impacting. Non-intrusive investigation allowed immediately (i.e. monitor port(s) for any errors, verify optical routing on shortest path possible, pull PMs etc.) Intrusive testing allowed only during the customer-provided window.
Sev 2	Degradation of service. A medium-to-low impact issue during which users/services are able to function but business is impaired.	Intermittent outages outside of the customer business hours. Intermittent errors, packet loss, latency, etc. Non-intrusive investigation allowed immediately. Intrusive testing allowed only during the customer-provided window.
Sev 3	Minor fault or issue with low or no impact on quality, performance or functionality.	Scheduled maintenance events. Service inquiries.

		Demarc verification. Request for soft disconnect.
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Fault Update Intervals

The following table details the specific updates intervals as advertised to our customers. Please note that these are only “as advertised” and are in the worst case scenarios, therefore updates to customers should not only be more frequent but also at regular intervals. There is specific documentation that covers non standard incident management faults. For example Layer 2 and 3 are covered by the ECS Managed services process, Major outages are covered by the Major outage process. For further information please refer to process documentation in the Document Library at the following location:

<http://ipchome/sd/GSOC>

	Time to log	Initial update	Subsequent updates
Sev1+	Immediate	30 minutes	1 hour
Sev1	Immediate	30 minutes	2 hours
Sev2	Immediate	1 hour	4 hours
Sev3	Immediate	2 hours	At resolution

Escalation Process

IPC implements the following five level internal escalation notification procedures for Sev 1+ and Sev 1 faults. The GSOC Analyst would contact Escalation Contacts via email to formally escalate the fault and follow up via a phone call if no response is received within the stated timescales. Consideration needs to be taken as to what region is active at the time of the fault; therefore escalations should be raised with the escalation contacts for the region that is active at the time where possible. Please see the Internal Escalations folder under the General Document library at the following location:

<http://ipchome/sd/GSOC> for more information.

Level	Title	Business Hours	Outside Business Hours
1	GSOC Manager	15 minutes	60 minutes
2	Senior Manager, Network Operations	30 minutes	90 minutes
3	Regional Director, GSOC	30 minutes	120 minutes
4	VP, Network Services	60 minutes	120 minutes
5	VP, Customer Services	60 minutes	120 minutes

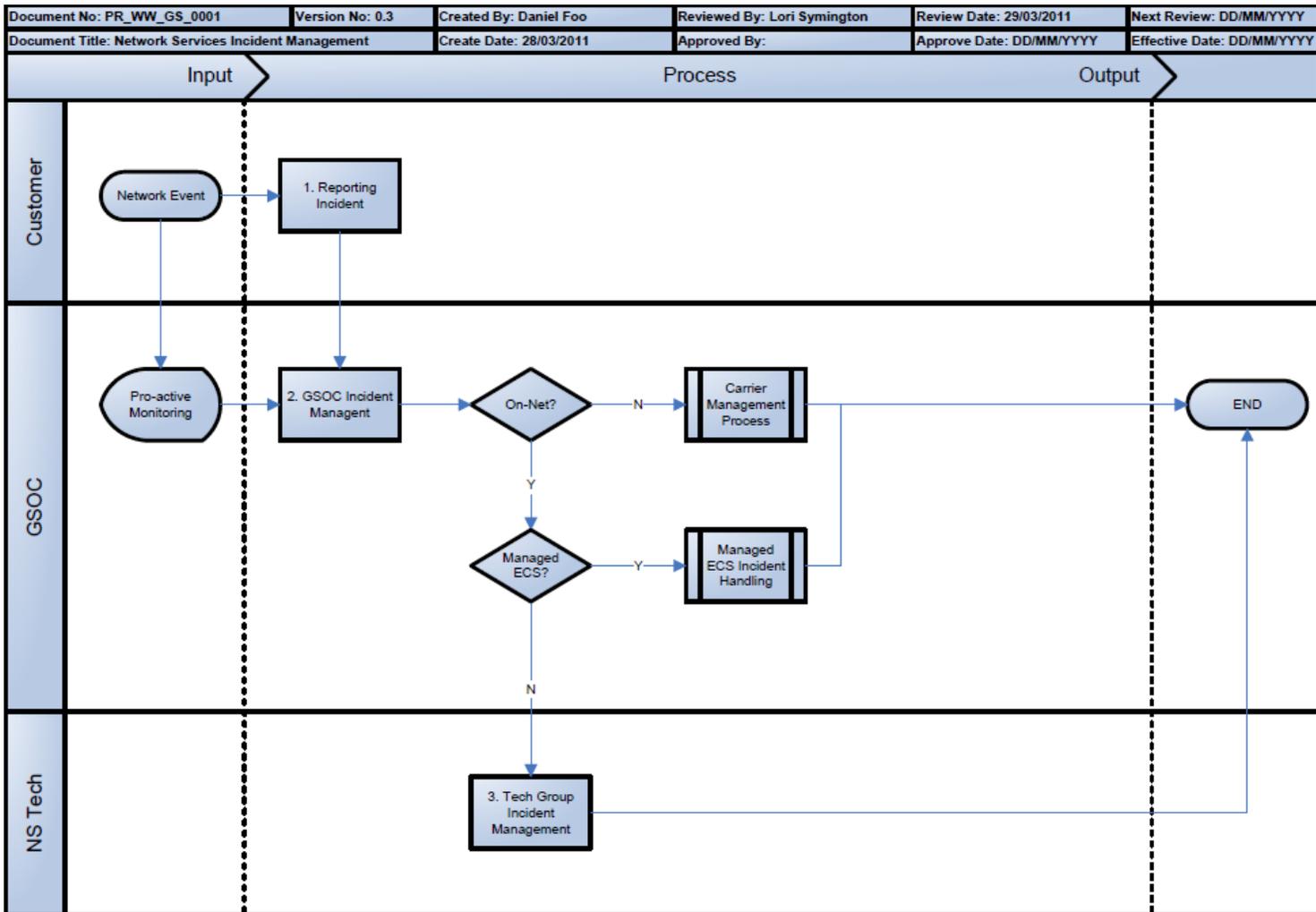
10. Additional Supporting and Reference Documentation

Below is the link to the shared documents site on the intranet for GSOC. Here you will find all procedures, processes and user guides relating to the GSOC.

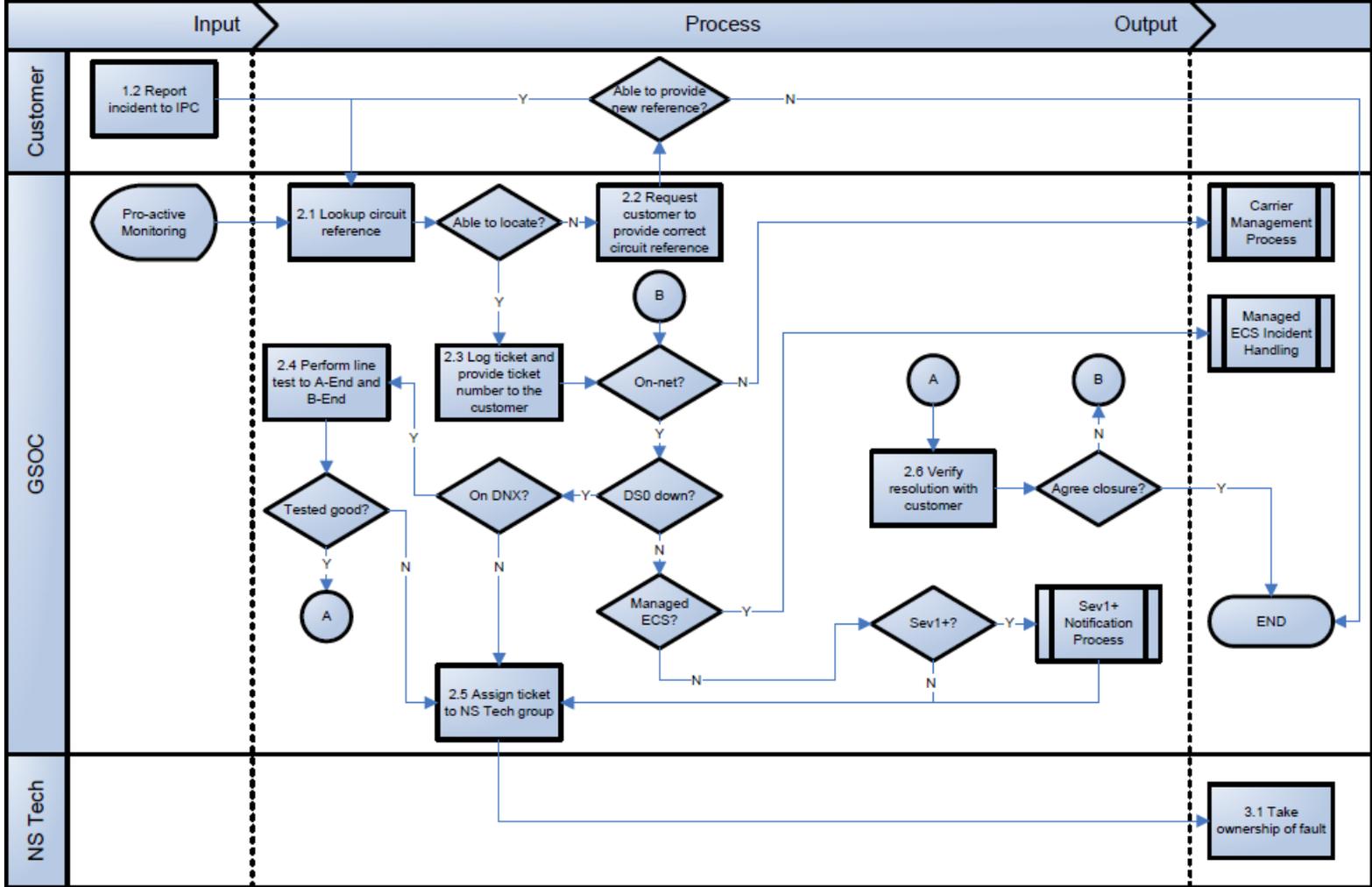
<http://ipchome/sd/GSOC>

11. Workflow Diagrams

NETWORK SERVICES INCIDENT MANAGEMENT



REPORTING INCIDENT



TECH GROUP INCIDENT MANAGEMENT

