Premises Distribution System

SJC Tenant PDS
Policies and Procedures
March 2012

Table of Contents

1. Introduction

The Norman Y. Mineta San Jose International Airport (SJC or Airport) has embarked on a new business model to allow the efficient utilization of the Airport's technical infrastructure through implementation of a flexible and scalable IT environment. This environment, referred to as the IT Flexible Provisioning Environment (FPE), allows a partnership between the airlines, other airport tenants, and the airport that permits the dynamic assignment of airport physical resources, and provides a common network infrastructure that increases operational efficiency and reduces operating costs for all parties. There are numerous benefits to providing a common IT infrastructure for all tenants. These benefits are applicable to both the initial implementation and ongoing support costs:

Initial Implementation Costs – Provisioning a single, shared infrastructure results in cost savings when compared to the deployment of individual, proprietary networks. If each system or tenant is required to install proprietary conduit, cabling, and network components, the resultant total implementation costs exceed the cost of a shared installation.

Support Costs – The initial capital costs of a system represents only a portion of the total cost of owning and operating the system. By supporting only one network, SJC lowers its operational costs and the resultant costs (through rates and charges) for its tenants.

Lower Future Deployment Costs – A flexible and scalable IT infrastructure allows SJC to cost-effectively implement new technologies as they become appropriate.

2. Definitions:

2.1 PREMISES DISTRIBUTION SYSTEM:

The Premises Distribution System is comprised of the Active and Passive Infrastructure installed and maintained by SJC Airport.

2.2 OPERATING SECURITY POLICIES FOR INFORMATION SYSTEMS AND TECHNOLOGY

This policy outlines the requirements for the management of all IT systems and related infrastructure at SJC. This policy is provided on an as needed basis.

2.3 SJC PASSIVE INFRASTRUCTURE:

The SJC Passive Infrastructure is any data, video and telecommunications cabling infrastructure that includes the physical cabling (copper and fiber), conduits, racks, patch panels that tie the cabling together. This infrastructure is owned and maintained by SJC.

2.4 TENANT PASSIVE INFRASTRUCTURE

The Tenant Passive Infrastructure is any data, video and telecommunications cabling infrastructure that includes the physical cabling (copper, fiber and coaxial), conduits, racks, patch panels that tie the cabling together. This infrastructure is allowed only in the Tenant Intra-Leased space, or in the space between the Tenant Intra-Leased space and the nearest SJC Communications Room. Cabling within the Tenant Intra-Leased space is maintained by the Tenant and the cabling between the Tenant Intra-Leased space and the SJC Communications room is maintained by SJC IT. Should the Tenant contract expire, SJC will determine whether the Tenant must remove and dispose of all associated components.

2.5 SJC ACTIVE INFRASTRUCTURE

The SJC Active Infrastructure includes all of the electronics that are part of the network. This includes all switches, routers, bridges, etc. that allow for the transfer of data across the network. This active infrastructure is owned and maintained by SJC.

2.6 TENANT ACTIVE INFRASTRUCTURE

The Tenant Active Infrastructure includes all of the electronics that are part of the Tenant's proprietary information technology. This includes all servers, switches, routers, bridges, etc. that allow for the transfer of data across their proprietary network. This infrastructure is owned and maintained by the Tenant. Should the Tenant contract expire and/or the Tenant be no

longer able to use this infrastructure, the Tenant shall be responsible for the removal and disposal of all associated components. Tenant Active Infrastructure shall reside in the Tenant Intra-Leased Space, unless other written authorization is granted by SJC.

2.7 TENANT INTRA-LEASED SPACE

A contiguous space exclusively leased by the tenant in which all of the tenant's passive and active networks can be housed. This space does not traverse any common areas such as hallways, stairs, etc.

2.8 TENANT INTER–LEASED SPACE

Two or more non-adjoining locations exclusively leased by the tenant.

2.9 SJC IDF COMMUNICATION ROOM

This is a room that is used primarily for Airport specific communications equipment and will not be permitted to house tenant proprietary equipment. It is subject to more stringent access rules due to security requirements as defined in the SJC IT Security Policy for Information Systems and Technology.

2.10 TENANT INTRA-LEASED SPACE COMMUNICATION ROOM

This is a room that is within a Tenant Intra-Leased Space as defined in Section 2.5. This is the location where the tenant would house its proprietary Passive and Active Infrastructure.

2.11 TV MINIMUM POINT OF ENTRY

This is the SJC IDF communications room closest to the specific location the television service provider's signal enters Airport property.

3. SJC Tenant PDS Policies

3.1 SJC PASSIVE INFRASTRUCTURE POLICY

3.1.1 Cabling Installation and Ownership

3.1.2 All data, video and telecommunications infrastructure installed by SJC is for the sole use of SJC and its tenants. No sub-letting (with or without compensation) to other parties will be permitted without written authorizations from SJC Properties in consultation with SJC IT.

3.1.3 SJC will provide installation of all cabling between communications rooms (including specialty cabling required for specific tenant applications). Horizontal cabling from communications rooms to end devices at wall outlets must be provided by an SJC-approved contractor hired by the tenant. All installations of new cabling must be approved by and scheduled through SJC IT as described in the PDS Procedures section of this document. All video, data and telecommunications cabling installed on the SJC campus shall be installed in accordance with these SJC PDS Policies and Procedures and conform to industry standards applicable at the time.

3.1.4 All SJC Passive Infrastructure installed at SJC will terminate in one of the SJC supplied and provisioned SJC IDF Communications Rooms.

3.1.5 All access to SJC IDF Communications Rooms will be controlled by SJC IT. Tenant representatives that have been approved to provide horizontal cabling that will require access to a SJC IDF Communication Room will require escort by a SJC IT representative. Escorting procedures are outlined in the SJC Data Center – Communications Room Access Policy.

3.1.6 Escorting by an SJC IT employee may be subject to an hourly charge as defined in the Airport Rate Resolution.

3.1.7   Any and all exceptions to these policies and procedures shall be requested in writing by the Tenant and will be approved by the SJC Airport Director and responded to in writing. No exception will be granted without SJC written authorization.

3.1.8   Terminations

All Unshielded Twisted Pair (UTP) and horizontal cabling installed in SJC communications rooms will terminate in SJC provided RJ-45 patch panels. Terminations will be consistent with ANSI/TIA/EIA Category 6 cable standards. Specialty cabling required for specific applications will be terminated according to manufacturers' standards.

Each UTP cable installed will support a single device. All horizontal runs shall be point-to-point from the communications room to the outlet location with all four pairs of each cable terminated in a single jack. Splitting of cable pairs from a horizontal run will not be allowed. SC connectors will be used for all fiber terminations on the campus.

3.1.9   Labeling

All cables installed in SJC facilities will be labeled according to industry cable management standards.   Labeling requirements for tenant or third party installations will be provided by an SJC IT representative prior to installation. Tenants must complete the required labeling prior to SJC acceptance of the installation.

3.1.10   Cable Assignments

An SJC IT representative shall provide cable assignments for all tenant applications and systems in accordance with the established procedures in the SJC Procedures Section of this document. Any tenant use of cables that have not been specifically assigned may be subject to disconnection without notice.

3.1.11 Cross-connections

All cross connections required to provision specific circuits shall be performed by SJC IT personnel. In no instance shall any tenant or tenant representative perform any cross-connection involving SJC cabling.

3.1.12 Cabling Standards

The following provides a summary of the standards that have been adopted by SJC in developing the passive portion of the PDS.

3.1.12.1

All cable (fiber & copper) is required to run through cable tray or conduit. SJC IT will validate that there is sufficient space for the cable runs. Any additional conduit or cable tray that will be required to be installed will be coordinated with SJC Properties and SJC IT through the SJC FORM A/B process described in the procedures section of this document.

3.1.12.2 Horizontal UTP

SJC has standardized on the use of Category 6 cabling for all horizontal applications at SJC as part of an overall structured cabling solution. The structured cabling solution installed at SJC shall conform to existing solution agreements. This solution will provide complete end-to-end horizontal channels that are certified to meet the ANSI/TIA/EIA Category 6 standard. The channel includes all cabling and termination equipment within the SJC communications rooms.

3.1.12.3 Riser Copper

The riser copper cabling installed at SJC shall also be part of the agreed upon solution. This copper Unshielded Twisted Pair (UTP) cabling shall consist of Category 3 cabling that is capable of supporting voice applications, as well as legacy data protocols such as RS-232, RS-485, etc. All riser terminations in the SJC communications rooms shall utilize industry standard 110 blocks.

3.1.12.4 Riser Fiber

The riser fiber installed at SJC shall consist of a flexible system that fully supports a dynamic environment. The system provides single mode fiber and 62.5 micron multi-mode fiber. The system is fully compliant with ANSI/TIA/EIA-568A, Underwriters Laboratories Riser and Plenum Ratings, and ICEA-S-83-596.

3.1.12.5 CATV Coaxial Cable

The coaxial cable installed at SJC shall consist of components that meet all applicable standards for video transmission such as RG6X or equivalent. Any vendor requiring video transmission services that require coaxial-type cables for transmission must submit a detailed proposal describing the specific distribution plan to be used including head-end, distribution cross-connects points and end-station distribution point to SJC IT in advance of their installation **utilizing the SJC FORM A/B process described in the procedures section of this document**. Coaxial cabling is only allowed from an Airport designated SJC IDF Communications Room to a Tenant Intra-Leased Space.

3.1.13 Maintenance of the SJC Passive Infrastructure

All maintenance and troubleshooting of the SJC Passive Infrastructure shall be performed by an SJC IT employee, or SJC designated representative. In no instance shall any tenant or tenant representative perform any modifications to SJC cabling. Requests for maintenance and troubleshooting shall follow the SJC IT support procedures defined below.

3.1.14 Extension of Television Services Circuits – TV Minimum Point of Entry to Intermediate Point of Entry

Tenant's video services circuits requiring extension from SJC TV Minimum Point of Entry to termination points within the Tenant Intra-Leased Space should be provided by the tenant.

3.1.14.1 Extension of Video Services Circuits – SJC IDF Communications Rooms to Tenant End Point

Tenant's video services circuits from SJC IDF Communications Rooms to Tenant end point locations within their Intra-Leased Space shall be provided by the tenant and coordinated with SJC IT.

3.1.15 Video Service Requirements

Tenants requiring satellite installation for video entertainment services shall submit installation requirements and plans including roof penetration and mounting details, to SJC utilizing the SJC FORM A/B process described in the procedures section of this document, prior to the commencement of installation. SJC retains the right to coordinate all tenant video installations with potential providers and tenants in an effort to streamline the Passive Infrastructure requirements.

3.1.16 Tenant Active Infrastructure for Video Service

Tenants shall be allowed to install active infrastructure components for the purpose of video signal distribution from SJC IDF Communications Rooms to the Tenant Intra-Leased Space. All installations shall be subject to review and written approval by SJC IT.

3.2 TENANT PASSIVE INFRASTRUCTURE POLICY

3.2.1 Cabling Installation and Ownership

3.2.1.1 All data, video and telecommunications infrastructure installed by Tenant is for the sole use of that Tenant.

3.2.2 Tenant passive infrastructure is allowed only in the Tenant Intra-Leased space, or in the space between the Tenant Intra-Leased space and the nearest SJC IDF Communications Room. Cabling within the Tenant Intra-Leased space is maintained by the Tenant and the cabling between the Tenant Intra-Leased space and the SJC IDF Communications room is maintained by SJC IT.

3.2.3 All Tenant Passive Infrastructure installed at SJC will terminate within the Tenant's Intra-Leased Space, or at the SJC TV Minimum Point of Entry for television services. This applies to intermediate connection needs for signal bifurcation and/or re-amplification.

3.3 SJC ACTIVE INFRASTRUCTURE POLICY

3.3.1 Active Equipment Installation and Ownership

3.3.1.1 All SJC active network equipment is the sole property of SJC. All SJC active network equipment shall be installed by SJC or approved network support vendor. All SJC network equipment installed on the SJC campus shall be installed in accordance with SJC IT procedures and conform to SJC standards for Active Infrastructure.

3.3.1.2 All active network equipment that is part of the PDS and installed by SJC is for the sole use of SJC and its tenants.

3.3.1.3   Any and all exceptions to these policies and procedures will be granted in writing by the Director of Aviation. No exception will be granted without SJC written authorization.

3.3.2   Active Equipment Configuration, Maintenance and Troubleshooting

3.3.2.1   All configuration, maintenance and troubleshooting of the active network equipment of the PDS shall be performed by SJC or their support vendor. In no instance shall any tenant, or tenant representative perform any modifications to SJC equipment. Requests for maintenance and troubleshooting shall follow the SJC IT Support Procedures.

3.3.2.2   The unique business model of the airport requires that the Local Area Network (LAN) configuration support multiple, independent entities which must remain totally isolated from one another (i.e. airline tenants, concessionaires, CITY, etc.). Each isolated tenant shall have campus-wide LAN connectivity through the assignment of dedicated layer 2 VLAN(s), shall be able to use their own IP addressing schemes.   All VLAN assignments shall be made by SJC IT. Tenants who require access to their assigned VLANs shall provide their own logical addressing and necessary routing between their assigned layer 2. SJC IT will assign IP addressing in situations where tenant requires data connectivity to SJC systems.

3.3.2.3   Configuration, maintenance and troubleshooting of all tenant end devices and peripherals are the sole responsibility of the tenant. SJC assumes no responsibility for the operation of these devices.

3.3.2.4   SJC does not provide Internet access or private WAN data circuits for tenants. Tenants should be prepared to work with external

communication services providers to acquire and maintain these services.

3.3.3 SJC Network Infrastructure and Technology

The following provides a summary describing the SJC network infrastructure and technology that have been adopted by SJC in developing the active portion of the PDS.

3.3.3.1 SJC provides a high availability 99.999% uptime network.

3.3.3.2 SJC network is monitored 24x7.

3.3.3.3 SJC Network is fully documented and includes all equipment inventory, configuration and physical, logical network topology diagrams. All provisions of the network are subject to the Operation Security Polices for Information System and Technology

3.3.3.4 The use of remote access through the SJC VPN is only authorized for specific business needs.

3.3.3.5   No dial-in access is allowed to devices connected to the SJC network. VPN access will be provisioned as required for remote monitoring and support.

3.3.3.6 The SJC network is a PCI-DSS compliant as a service provider. SJC completes an on-site audit on an annual basis to maintain its PCI compliance. The most recent PCI compliance document is located on the SJC website.

3.3.4 WAN Links

All WAN links to the tenant specific VLAN shall be provided and configured by the tenant and shall utilize the passive portion of the PDS as described in this document.

The connection to the active portion of the PDS shall be via a standard Ethernet connection and shall be coordinated with the SJC IT representative.

3.4 WIRELESS POLICY

3.4.1 Applicability

Tenants may install private unlicensed wireless systems within their own exclusively leased space only.

3.4.1.1 Responsibility - Tenant takes full responsibility of devices; Airport is not responsible for any wireless devices belonging to Tenant.

3.4.1.2 Security – Airport is not responsible for any detriments to the Tenant's system that occurs as a result of lack of security.

3.4.1.3 Tenant is responsible for monitoring the RF spectrum to prevent any sort of passive attacks on their wireless system.

3.5 RATES AND CHARGES

Consistent with the City's rate and charges resolution for the Airport, SJC may charge tenants for the use of the PDS infrastructure and the services described herein.

4. SJC Tenant PDS Procedures

4.1 PDS PROCEDURES

4.1.1 New Projects – Tenant Improvement (TI) or Construction

Infrastructure projects that are a part of construction, renovation or TI projects typically follow the standard SJC Tenant Improvement procedures outlined in the Tenant Improvement Guidelines Document. SJC IT is engaged as part of the Airport team for the tenant's requests. This Tenant Improvement Guidelines document is available from the tenant's SJC Property Manager and on the SJC.org website.

4.1.2 New Infrastructure or Telephony Requests

Projects that are not part of a construction, renovation or TI project addressed in Section 4.1.1 above, will follow the Tenant Design and Construction Guidelines. This process requires the completion of Concept Review Application Form and processing through the SJC Property Manager. They will route the Tenant's request to the correct SJC IT representative for review. The SJC Property Manager will contact the tenant and advise how to proceed.

4.1.2.1 Standard Process

Tenant will be instructed to provide necessary submittal documents depending on the requirement. Typically this includes a request to submit (4) complete sets of documents to SJC IT for review at least thirty (30) days prior to the anticipated project start date.

SJC IT Response - SJC IT will send written review comments and a PDS utilization plan to the Tenant. This letter will advise Tenant to either forward original drawings or reproducible documents for signature, or revise and resubmit the documents. The Response will also contain an SJC plan for PDS usage showing all termination locations, cross-connect points, co-location assignments

and related charges. Approximate time required: 15 days from receipt of submittal.

SJC Authorization - When all review comments have been resolved, SJC will sign the Tenant's construction documents and issue an authorization letter.

Record Drawings - Within 30 days of completion of construction, Tenant must provide to SJC IT record drawings which accurately represent all as-built conditions.

4.1.3   Cable Requests/Assignments

4.1.3.1   Standard Voice

Demarcation – All Public Switched Telephone Network (PSTN) provisioning will terminate in the specified demarcation areas of the campus. Public providers (LEC and CLEC) will be assigned equipment installation and demarcation areas within the main communications room in the individual building(s).

Standard voice circuits will be extended over the SJC PDS to tenant leased spaces by SJC personnel. Routing and pair assignments will be performed solely by SJC IT.

Requests for demarcation extension must be made to SJC IT through the **Concept Review Application Form** at least ten (10) working days prior to termination of the circuit and should include at least:

- PSTN provider and anticipated date of circuit provisioning
- Tenant name and contact information
- Circuit identification number
- Specific tenant location for extension
- Any restrictions on SJC IT access to tenant space and/or escort requirements.

SJC will provide a service agreement and quote for related PDS circuit provisioning charges within two (2) working days of receipt of request. A service

agreement signed by an authorized tenant representative is required prior to demarcation extension.

4.1.3.2 Ethernet Requests / Assignments

All Ethernet transport will be provided via the SJC supplied and managed network. To facilitate requests for services the following procedures shall be adhered to:

Request for Services – Tenant shall submit an initial request for Ethernet services shall be submitted using the Tenant Improvement process described above. The information to be provided shall include the following as a minimum:

- Number of Ethernet drops required.
- Location of Ethernet drops.
- Minimum bandwidth required.
- VLAN requirements
- Tenant contact information

SJC IT Response – SJC IT will review the initial request for services and provide a written response. The written response will include a network utilization plan, estimated duration for configuration/implementation, and costs for services.

Pre-implementation conference. Prior to implementing the Ethernet provisioning, a conference will be held with tenant and SJC IT representatives. The purpose of this conference will be to discuss the implementation plan, configuration requirements, scheduling, and other issues that will affect the implementation.

Configuration records. After implementation, SJC IT will provide the tenant with configuration records detailing the implementation and specific configurations.

Other – Other connectivity requirements will be negotiated and coordinated with individual tenants as required. Provisioning and maintenance of the PDS remains under the sole purview of SJC.

4.1.3.3   WAN Links

Demarcation – Wide Area Network (WAN) links may either terminate in an SJC Communications Room or in the tenant leased space. Extensions of WAN links into tenant spaces shall be over the SJC structured cabling system. Requests for extension of a WAN link to the tenant leased space should follow the Moves, Adds, and Change procedures described below.

SJC will provide a service agreement and quote for related PDS circuit provisioning charges within two (2) working days of receipt of Tenant's request. A service agreement signed by an authorized tenant representative is required prior to demarcation extension.

4.1.4   Moves Adds and Changes

Requests for Moves Adds and/or Changes (MAC) to existing circuit provisioning should be made to their assigned SJC Property Manager. No tenant employee or representative may perform changes or additions to the PDS including altering the termination of a wall jack. Charges for MAC's will be according to agreements entered into between the City and Tenant.

4.1.5   Contact Information and Hours

For any service requests, Tenants should call the Airport Help Desk at 408 392-1170. Tenant's service call will be routed to the correct technician and will be serviced based on agreements entered into between the City and Tenant. Support technicians will be available on-site between 8am and 5pm Monday through Friday. For after hour emergencies, Tenants should call the Airport Communications Center at 408-277-5100 and a SJC IT representative will be notified.

4.1.6 Site Escort Services –

SJC IT will arrange for escort services as necessary when tenant representatives need access to SJC IDF Communications Rooms. Requests for escort to perform routine maintenance or cable installations should be submitted at least two (2) working days in advance. Site escort services for emergency repairs will be provided according to the service level agreement entered into with each tenant.

4.1.7 Service Agreements

If any of the services described in this document are requested or required by Tenant, The City and Tenant will enter into an agreement setting forth the specific services provisioned, the levels of support, and the associated costs.