



Planning Worksheets

Revised: December 16, 2010, OL-18092-11

This chapter provides a variety of worksheets that you can use to plan your Cisco PGW 2200 Softswitch configuration. You can find a variety of planning worksheets for you to copy and fill in. Each worksheet contains one or more sample entries for the provisioning component and blank rows for you to fill in for your configuration.



Tip

We recommend that you keep a blank copy of each worksheet in case you need additional copies.



Tip

Some tables provide space to plan many provisioning components, but other tables provide space to plan only one component. If you need to plan more components than the space provided in the worksheets, print out additional copies.

Table A-1 External Device Worksheet Example

| Device IP Address (x.x.x.x) | Device Name | Description |
|--------------------------------|-------------|-----------------------|
| 10.15.7.34 | as5300-34 | Media Gateway 5300-34 |
| | | |
| | | |
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Table A-2 Originating Point Code Configuration Parameters

| Name | Netaddr | Netind | Description | OPC Type | True OPC |
|------|----------|--------|------------------------------------|----------|----------|
| OPC1 | 22.22.23 | 2 | Cisco PGW 2200 Softswitch 1 OPC | TRUEOPC | OPC1 |
| | | | | | |
| | | | | | |

Table A-2 *Originating Point Code Configuration Parameters (continued)*

| Name | Netaddr | Netind | Description | OPC Type | True OPC |
|------|---------|--------|-------------|----------|----------|
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Table A-3 *Destination Point Code Configuration Parameters*

| Name | Netaddr | Netind | Description |
|------|----------|--------|-------------|
| DPC1 | 32.32.33 | 2 | DPC 1 |
| | | | |
| | | | |
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Table A-4 *Adjacent Point Code Configuration Parameters*

| Name | Netaddr | Netind | Description |
|------|----------|--------|------------------|
| STP1 | 12.12.13 | 2 | STP 1 point code |
| | | | |
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Table A-5 *QSIG/Q.931 Over BRI Backhaul Signaling Service Worksheet Example*

| Name | External Node | Q.931 Call Model Side | MDO File | Customer Group ID | Call Reference Length | Description |
|---------|---------------|-----------------------|-------------|-------------------|-----------------------|------------------------|
| brisvc1 | va-3640-01 | | ETS_300_102 | | 1 | BRI path to va-3640-01 |
| | | | | | | |
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Table A-5 QSIG/Q.931 Over BRI Backhaul Signaling Service Worksheet Example (continued)

| Name | External Node | Q.931 Call Model Side | MDO File | Customer Group ID | Call Reference Length | Description |
|------|---------------|-----------------------|----------|-------------------|-----------------------|-------------|
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Table A-6 Linkset Configuration Parameters

| Name | Point Code | Type | Protocol | Description |
|----------|------------|------|----------|----------------------|
| Lnkset-1 | DPC-1 | IP | SS7-ANSI | Linkset 1 to ITP-L 1 |
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Table A-7 C7 IP Link Configuration Parameters

| MML Parameter Name | Configuration Setting |
|--------------------|----------------------------------|
| NAME | ss7lnk1 |
| SESSIONSET | slt1 |
| PRIORITY | 1 |
| TIMESLOT | 0 |
| SLC | 0 |
| LNKSET | lnkset1 |
| DESC | SS7 link 0 for lnkset1 to 2611-1 |
| NAME | |
| SESSIONSET | slt1 |
| PRIORITY | |
| TIMESLOT | |
| SLC | |
| LNKSET | |
| DESC | |

Table A-8 IP-Link Configuration Parameters

| MML Parameter Name | Value |
|-----------------------------------|-----------------|
| NAME | eiplnk1 |
| DESC | sigeisup1 |
| SVC | sigeisup1 |
| IPADDR | IP_Addr_1 |
| PORT | 8001 |
| PEERADDR | 172.24.235.205 |
| PEERPORT | 8001 |
| PRIORITY | 1 |
| NEXTHOP | 0.0.0.0 |
| NETMASK | 255.255.255.255 |
| NAME | |
| DESC | |
| SVC | |
| IPADDR | |
| PORT | |
| PEERADDR | |
| PEERPORT | |
| PRIORITY | |
| NEXTHOP | |
| NETMASK | |
| NAME | |
| DESC | |
| SVC | |
| IPADDR | |
| PORT | |
| PEERADDR | |
| PEERPORT | |
| PRIORITY | |
| NEXTHOP | |
| NETMASK | |

Table A-9 SS7 Route Worksheet Example

| Name | OPC | DPC | Linkset | Priority | Description |
|--------|-----|------|---------|----------|---------------------------|
| ss7rt1 | opc | dpc1 | lnkset1 | 1 | SS7 Route to dpc1 by stp1 |
| ss7rt2 | opc | dpc2 | lnkset2 | 1 | SS7 Route to dpc1 by stp2 |
| | | | | | |
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Table A-10 Nailed Trunk Worksheet Example

| Trunk ID | Source Signaling Service | Source Span | Source Time slot/CIC | Dest Sig Service | Dest Span | Dest Time Slot/CIC | Span Size |
|----------|--------------------------|-------------|----------------------|------------------|-----------|--------------------|-----------|
| 101 | ss7srv | fixed | 1 | signal1 | fixed | 1 | 1 |
| | | | | | | | |
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Table A-11 Switched Trunk Worksheet Example

| Trunk ID | Trunk Group Number | Span | CIC | Coding Unit | End Point | Span Size |
|----------|--------------------|------|-----|-------------|-----------|-----------|
| 10101 | 25535 | 100 | 1 | signal1 | fixed | 1 |
| | | | | | | |
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Table A-12 SS7 Subsystem Worksheet Example

| Parameter | Parameter Value | | |
|--------------------------------|-----------------|--|--|
| Name of APC or TCAP/IP service | apc1 | | |
| Protocol family | | | |
| APC of the mated STP | apc2 | | |
| Priority | | | |
| Local SSN | | | |
| STP/SCP Index | | | |
| Transport protocol | SCCP | | |
| OPC | ROUTING_KEY_ID | | |
| Routing Key | rtkey1 | | |
| SUA Key | | | |
| Remote SSN | 5 | | |

Table A-13 External Node Configuration Parameters

| Name | Type | ISDN Signaling Type | Group | Description |
|------|--------|---------------------|-------|------------------|
| Gw1 | AS5300 | | | AS5300 gateway 1 |
| | | | | |
| | | | | |
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Table A-14 Media Gateway Signaling Service Configuration Parameters

| MML Parameter Name | Configuration Setting |
|--------------------|-----------------------|
| NAME | |
| MDO | |
| EXTNODE | |
| SIDE | |
| CUSTGRPID | |

Table A-14 Media Gateway Signaling Service Configuration Parameters (continued)

| MML Parameter Name | Configuration Setting |
|--------------------|-----------------------|
| CUSTGRPTBL | |
| ABFLAG | |
| CRLEN | |
| DESC | |
| PATHSIZE | |
| PORT | |
| PEERPORT | |
| SIGSLOT | |
| SIGPORT | |
| SIGPORTSKIP | |
| BACKUP | |

Table A-15 MGCP Signaling Service Worksheet Example

| Name | Ext Node | Description |
|---------|----------|------------------|
| MGCpth1 | Gw1 | MGCP path to Gw1 |
| | | |
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Table A-16 SS7 Signaling Service Configuration Parameters

| Name | Side | MDO | DPC | Custgrpld | OPC |
|------|------|-----|-----|-----------|-----|
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Table A-17 SS7 Signaling Service Worksheet Example

| Service Type | Name | Description | Protocol Type | Customer Group ID |
|--------------|---------|---------------------|----------------------|-------------------|
| SS7 | ss7svc1 | SS7 service to DPC1 | ANSISS7_ STANDARD | 7777 |
| | | | | |
| | | | | |
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Table A-18 Cisco ITP-L Linkset Worksheet Example

| Description | Linkset | Card Interface | Linkset Type | Linkset Rate | Protocol | Cisco ITP-L IP Address | MGC IP Address |
|----------------------------|---------|----------------|--------------|--------------|----------|------------------------|----------------|
| Signaling Link 1 to ITP-L1 | ls-stpa | T1 | A link | 64 kbps | SS7-ANSI | 10.15.7.5 | 10.15.7.8 |
| Signaling Link 2 to ITP-L1 | ls-stpb | T1 | A link | 64 kbps | SS7-ANSI | 10.15.7.5 | 10.15.7.8 |
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Table A-19 IP Link Worksheet Example

| Name | Description | Service | IP Address | Port | Peer IP Address | Peer Port | Priority | IP Route |
|----------|---------------------------------|----------|------------|------|-----------------|-----------|----------|----------|
| MGC-lnk1 | IP link for MGCP service to Gw1 | mgcpsr-1 | IP_Addr1 | 2427 | 175.24.235.155 | 2427 | 1 | |
| | | | | | | | | |
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Table A-20 Backhaul TCP Link Worksheet Example

| Name | Signaling Type | Local IP Address | Local Port Number | Destination IP Address | Destination Port Number | External Node | IP Route | Description |
|---------|----------------|------------------|-------------------|------------------------|-------------------------|---------------|----------|------------------------|
| britcp1 | bri | 175.25.211.17 | 1024 | 175.25.211.17 | 1024 | va-3640-01 | n-a | IP route to va-3640-01 |
| | | | | | | | | |
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Table A-21 Session Set Parameters

| MML Parameter Name | Value |
|--------------------|-------|
| NAME | |
| IPADDR1 | |
| IPADDR2 | |
| PORT | |
| PEERADDR1 | |
| PEERADDR2 | |
| PEERPORT | |
| EXTNODE | |
| TYPE | |

Table A-22 IP Route Worksheet Example

| Name | Destination | Subnet Mask | Next Hop | IP Address | Priority | Description |
|----------|-------------|---------------|----------|---------------|----------|------------------|
| iproute1 | itp1 | 255.255.255.0 | itp2 | 175.25.211.17 | 1 | IP route to itp1 |
| | | | | | | |
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Table A-23 IP FAS Signaling Service Worksheet Example

| Name | External Node | Q.931 Call Model Side | MDO File | Customer Group ID | A-B Flag | Call Reference Length | Description |
|---------|---------------|-----------------------|-------------|-------------------|----------|-----------------------|------------------------|
| brisvc1 | va-3640-01 | | ETS_300_102 | | | 1 | BRI path to va-3640-01 |
| | | | | | | | |
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Table A-24 DPNSS Signaling Service Worksheet Example

| Name | External Node | Customer Group ID | DPNSS Side | Signaling Port | Signaling Slot | Description |
|---------|---------------|-------------------|------------|----------------|----------------|---------------------|
| dpnsvc2 | va-3660-20 | | A | 0 | 0 | IUA DPNSSpath to GW |
| | | | | | | |
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Table A-25 D-Channel Worksheet Example

| Name | Signaling Type | Priority | Link | Slot | Port | Subunit | Description |
|----------|----------------|----------|---------|------|------|---------|-----------------|
| brichan1 | bri | 1 | britcp1 | 0 | 4 | 1 | bri d-channel 1 |
| | | | | | | | |
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Table A-26 M3UA Key Worksheet Example

| Name | OPC | DPC | Routing Context | Service Indicator | Network Appearance | Description |
|--------|------|------|-----------------|-------------------|--------------------|-------------|
| m3key1 | opc1 | dpc1 | 14 | ISUP | 700 | M3UA key 1 |
| | | | | | | |
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Table A-27 M3UA Route Worksheet Example

| Name | DPC | External Node | OPC | Description |
|--------|------|---------------|------|--------------|
| m3rte1 | dpc1 | itp1 | opc1 | M3UA route 1 |
| | | | | |
| | | | | |
| | | | | |
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Table A-28 SCTP Association Worksheet Example

| Parameter | Parameter Value | | | | | |
|--|-----------------|--|--|--|--|--|
| Name | assoc1 | | | | | |
| Description | association 1 | | | | | |
| Signaling Type | M3UA | | | | | |
| SGP name | sgp1 | | | | | |
| First local address | 175.23.211.15 | | | | | |
| Second local address (optional) | n/a | | | | | |
| Local SCTP port number (optional) | 2905 | | | | | |
| Highest priority destination address | 117.52.16.20 | | | | | |
| Lowest priority destination address (optional) | | | | | | |
| Destination SCTP port number (optional) | | | | | | |

Table A-28 SCTP Association Worksheet Example (continued)

| Parameter | Parameter Value | | | | | |
|---|-----------------|--|--|--|--|--|
| External node name | itp1 | | | | | |
| First IP route name (optional) | iproute1 | | | | | |
| Second IP route name (optional) | iproute2 | | | | | |
| Number of bytes to advertise for the local receive window. (optional) | | | | | | |
| Maximum number of times to retransmit SCTP INIT message (optional) | | | | | | |
| Maximum initial timer retransmission value (optional) | | | | | | |
| Maximum number of retransmissions over all destination address before the association is declared failed (optional) | | | | | | |
| Maximum time after a datagram is received before a SCPT SACK is sent (optional) | | | | | | |
| Maximum time SCTP will wait for other outgoing datagrams for bundling (optional) | | | | | | |
| Minimum value allowed for the retransmission timer (optional) | | | | | | |
| Maximum value allowed for the retransmission timer (optional) | | | | | | |
| Time between heartbeats (optional). | | | | | | |
| IP Precedence (optional) | | | | | | |
| Differential Service Code Point (optional) | | | | | | |
| Maximum number of retransmissions to either peer address 1 or 2 before it is declared failed (optional) | | | | | | |

Table A-29 SGP Worksheet Example

| Name | External Node | Description |
|------|---------------|--------------|
| sgp1 | itp1 | SGP for itp1 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Table A-30 SS7 Route Worksheet Example

| DPC | Linkset | OPC | Priority |
|------|---------|------|----------|
| dpc1 | lnkset1 | opc1 | 1 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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Table A-31 SS7 Signaling Service Worksheet Example

| Name | Q.931 Call Model Side | MDO File Name | DPC | Customer Group ID | OPC or Route Key ID | Description |
|---------|-----------------------|---------------|------|-------------------|---------------------|-------------------------|
| ss7svc1 | network | ansi_ss7 | dpc1 | 0000 | m3rtkey1 | SS7 signaling service 1 |
| | | | | | | |
| | | | | | | |
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Table A-32 SUA Key Worksheet Example

| Name | OPC | APC | Local SSN | Routing Context | Network Appearance | Description |
|---------|------|------|-----------|-----------------|--------------------|-------------|
| suakey1 | opc1 | apc1 | 70 | ISUP | 7000 | SUA key 1 |
| | | | | | | |

Table A-32 SUA Key Worksheet Example (continued)

| Name | OPC | APC | Local SSN | Routing Context | Network Appearance | Description |
|------|-----|-----|-----------|-----------------|--------------------|-------------|
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Table A-33 SUA Route Worksheet Example

| Name | APC | External Node | OPC | Remote SSN | Description |
|---------|------|---------------|------|------------|-------------|
| suarte1 | apc1 | itp1 | opc1 | 100 | SUA route 1 |
| | | | | | |
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Table A-34 SIP Data Path Worksheet Example

| Name | MDO File Name | Description |
|---------|---------------|---------------|
| sipsrv1 | va-3660-20 | path to Unity |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Table A-35 SIP Link Worksheet Example

| Name | Signaling Service | Priority | IP Address | Port | Description |
|----------|-------------------|----------|------------|------|-----------------|
| brichan1 | bri | 1 | britcp1 | 4 | bri d-channel 1 |
| | | | | | |
| | | | | | |
| | | | | | |
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Table A-35 SIP Link Worksheet Example (continued)

| Name | Signaling Service | Priority | IP Address | Port | Description |
|------|-------------------|----------|------------|------|-------------|
| | | | | | |
| | | | | | |

Table A-36 SIP and EISUP Profiles Worksheet Example

| Profile Name | Type | Trust Level | Topology Hiding | Property | Value | Profile Reference | SIP Header Table Name |
|--------------|-------|-------------|-----------------|-------------------|-------|-------------------|-----------------------|
| spf1 | SIP | 0 | 1 | ACCRspCntlInhibit | 1 | | outsiph1 |
| | | | | ADigitCCPrefix | 0 | | |
| spf2 | EISUP | 1 | 2 | | | epf1 | |
| | | | | | | | |
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Table A-37 Common Profiles Worksheet Example

| Profile Name | Type | Property | Value |
|--------------|--------|-------------|-------|
| epf1 | Common | Glare | 0 |
| gpf1 | Group | cgpninclude | 1 |
| | | | |
| | | | |
| | | | |
| | | | |
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Table A-38 Domain Profile Worksheet Example

| Profile Name | Domain | Direction | Property | Value |
|--------------|-----------|-----------|----------------------|-------|
| dpf1 | cisco.com | Inbound | populatesdpinfoincdr | 1 |
| dpf2 | bt.com | Outbound | | |
| | | | | |
| | | | | |

Table A-38 Domain Profile Worksheet Example (continued)

| Profile Name | Domain | Direction | Property | Value |
|--------------|--------|-----------|----------|-------|
| | | | | |
| | | | | |
| | | | | |

Table A-39 Trunk Group Profile Assignments Worksheet Example

| Trunk Group Number | Profile Name |
|--------------------|--------------|
| 1 | spf1 |
| 2 | gpf1 |
| | |
| | |
| | |
| | |
| | |
| | |

Table A-40 SIP Header Tables Worksheet Example

| Table Name | Type | Comments |
|------------|----------|----------|
| insight1 | Inbound | |
| outsight1 | Outbound | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Table A-41 Inbound SIP Header Table Worksheet Example

| Header Name | Index | Message | Condition | Treatment | DW1 Condition | DW2 Condition | DW3 Condition | DW4 Condition | DW1 Treatment | DW2 Treatment | DW3 Treatment | DW4 Treatment |
|-----------------|-------|---------|-----------|-----------|---------------|---------------|---------------|---------------|------------------|----------------|---------------|---------------|
| Remote-Party_id | 1 | INVITE | 2 | 4 | User= | Rpi- | | | ;User=phone | ;rpi-screen=no | | |
| Referred-By | 2 | REFER | 4 | 6 | Pgw.com | Cisco.com | | | CallerDomain.com | Pgw.com | | |
| | | | | | | | | | | | | |
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Table A-42 Outbound SIP Header Table Worksheet Example

| Header Name | Index | Apply Policy | Message | Condition | Treatment | Condition DW1 | Condition DW2 | Treatment DW1 | Treatment DW2 |
|-------------|-------|--------------|---------|-----------|-----------|---------------|---------------|-------------------|------------------|
| Retry-After | 1 | Trusted | 503 | 2 | 5 | Duration= | | ;Duration=100 | ;Reason=overload |
| Referred-By | 2 | ALL | REFER | 2 | 6 | CallerDomainA | | CallerDomainA.com | PGWA.com |
| | | | | | | | | | |
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Table A-43 Gateway Pool Worksheet Example

| Profile Name | Gateway Announcement Support | Gateway Codec Support | Gateway DTMF Support | Gateway Tone Support | Gateway Selection Method |
|--------------|------------------------------|-----------------------|----------------------|----------------------|--------------------------|
| DBE-Profile1 | 0 | 0 | 1 | 0 | 1 |
| | | | | | |
| | | | | | |

Table A-43 Gateway Pool Worksheet Example

| Profile Name | Gateway Announcement Support | Gateway Codec Support | Gateway DTMF Support | Gateway Tone Support | Gateway Selection Method |
|---------------------|-------------------------------------|------------------------------|-----------------------------|-----------------------------|---------------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |