

Strata CIX to Cisco™ UC520-16 Inter-operation

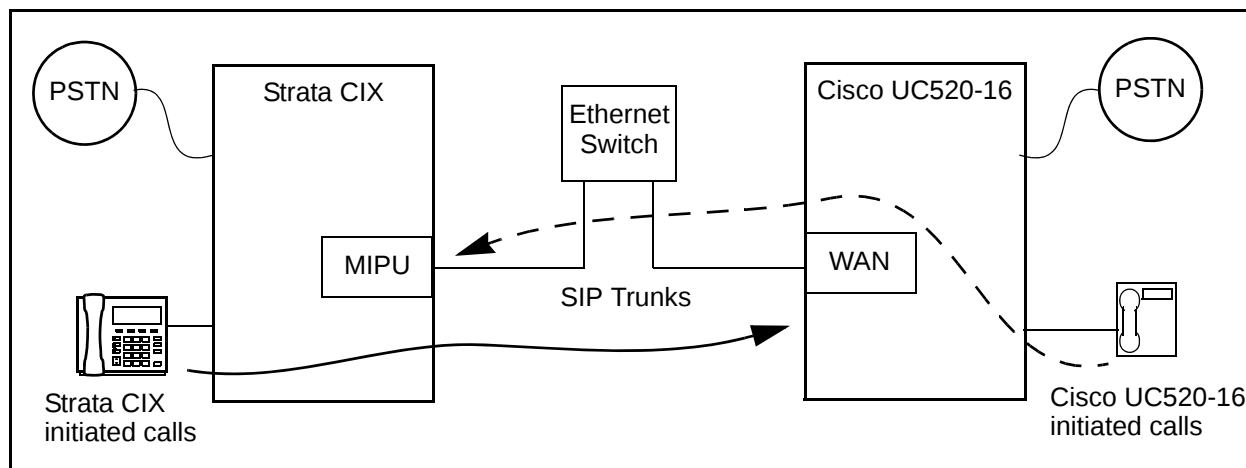
SIP Trunking can be used to pass calls directly between a Strata CIX system and other vendor's IP PBX systems and many features can be invoked on calls between the two systems. This Information Bulletin describes what features work between a CIX and a Cisco UC520-16 in lab testing, and how the two systems were configured. The following describes the configuration of the two systems to allow some feature inter-operation and extension-to-extension dialing.

Dealers wishing to configure a SIP Trunk connection to a Cisco Unified Communications Manager (Express) version 7.0 and above should contact their Toshiba Sales Engineer regarding SIP trunk licensing. Currently we support Cisco UCM 7.0, but will evaluate other leading PBXs under our Beta Program.

Disclaimer: This information bulletin is an explanation of the result of our testing regarding the Strata CIX system and the Cisco UC520-16. This is not a guarantee of interoperability between future releases of these products. Similarly there is no guarantee that similar results will be obtained when interoperating the Strata CIX system with other products from this vendor or with products from other vendors. Toshiba America Information Systems provides information about this third party product for the convenience of its customers, but does not endorse, warrant nor assume any responsibility or liability in connection with such third party products or services.

System Test Configuration

The diagram below shows a Strata CIX connected to a Cisco UC520-16. Both systems have their own connections to the PSTN, and their own telephones. The ethernet port of the MIPU card is connected to the Ethernet switch. The WAN port on the UC520 is also connected to the ethernet switch.



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Strata CIX System

The Strata CIX was configured with SIP trunks. The trunks were programmed a a Trunk Group (TG), in this case TG 7. The system configuration was a single digit (in this test, the digit 6) is set as the access code for Network Access for a Remote Node feature. The default configuration for the outgoing trunks is to repeat the digits dialed. The “calling number” sent is the URI assigned to the trunk group. Internally, the SMDR feature will record the Station number that initiated the call, the trunk group, the dialed digits the start time, and the duration of the call. When a Strata CIX station calls a Cisco UC520-16 station the Cisco telephone display will show the TG URI as the calling number. When a Cisco UC520 station calls a Strata CIX station, the incoming call is treated as an incoming SIP trunk call. The calling station number and name will be displayed.

- Stations 2001 ~ 2003 were assigned to an MIPU (MIPU IP address = 172.16.4.81)
- SIP-Trunk was assigned to the same MIPU card (DID/none register) four URI assignments of 2000, 2001, 2002, and 2003
- DN 2001 ~ 2004 are programmed to ring the matching stations respectively
- SIP trunk ISP assigned to the Cisco UC520-16 IP address (172.16.4.66).
- Program 327, FK35 and FK37 (SIP trunk) set to the [IPU IP address]
- Node-ID 6 assigned in the System Numbering Plan
- Dial the digit “6” accesses OLG 7 (the SIP trunk); the OLG is programmed to not modify digits dialed.

Cisco UC520-16 System

The Cisco UC520-16 treats the SIP trunks as SIP connections.

- Stations 6001 ~ 6003 assigned SIP IP address 172.16.4.66
- Generic SIP - Trunks were created
- Directory Numbers (DN) 6001~ 6003 were programmed to ring the matching station respectively.
- SIP proxy points to ISP at 172.16.4.81 (CIX MIPU IP address).
- SIP Registrar points to local at 172.16.4.66 (Cisco SIP IP).
- Dial-Peer 6000 for incoming SIP trunk of for the 6000-series DN
- Dial-Peer 2000 for outgoing SIP trunk to CIX

Simple Inter-Operation Examples

Cisco UC520-16 station initiates a call (to the Strata CIX):

1. A Cisco stations goes off-hook and dials 2001.
2. This invokes dial-plan 2000. Cisco selects a SIP trunk and sends “2001” to the Strata CIX.
3. The Strata CIX receives “2001” as a DID call then, rings to the matching destination, station 2001, the Cisco UC520-16 station name and number is sent to the station display.

Strata CIX initiate a call (to the Cisco520-16):

1. A Strata CIX station goes off-hook and dials 6001.
2. This is node-ID 6, the Strata CIX selects a SIP trunk and sends "6001" to the Cisco UC520-16.
3. The Cisco UC520-16 receives "6001" as a Destination then, rings the matching destination, station 6001. The URI programmed for that SIP trunk is sent to the station display.

Inter-Operation Table

The following tables is a list of features with two operations described. The feature operation when the caller accesses the feature from a station in the Strata CIX system. The other description is when the caller accesses the feature from a station in the Cisco UC520-16 system.

System Feature Inter-Operation		
Strata CIX Feature	Initiate	Operation
Account Codes	Strata CIX	Account codes are recorded in the SMDR data for incoming and/or outgoing calls.
	Cisco UC520-16	Based on Cisco UC520-16 feature operation
ACD Compatible To Conventional Features	Strata CIX	Internal only
	Cisco UC520-16	N/A
ACD Overflow to Voice Mail	Strata CIX	Internal only
	Cisco UC520-16	Calls to ACD stations will overflow
Advisory Message	Strata CIX	No - Messages appear only on Strata CIX stations
	Cisco UC520-16	No
After-shift Service	Strata CIX	Internal only
	Cisco UC520-16	N/A
Attendant Compatible To Conventional Features	Strata CIX	Internal only
	Cisco UC520-16	N/A
Automatic Busy Redial	Strata CIX	Yes
	Cisco UC520-16	Yes
Automatic Callback	Strata CIX	N/A
	Cisco UC520-16	N/A
Automatic Camp-on	Strata CIX	Yes
	Cisco UC520-16	Yes
Automatic Consultation Hold	Strata CIX	Yes
	Cisco UC520-16	Yes
(Sheet 1 of 8)		

System Feature Inter-Operation (continued)		
Strata CIX Feature	Initiate	Operation
Automatic Disconnect Of Incoming Call	Strata CIX	Yes
	Cisco UC520-16	Unknown
Automatic Release of CO	Strata CIX	Yes
	Cisco UC520-16	Yes
Background Music	Strata CIX	Back Ground Music is an internal function only
	Cisco UC520-16	Based on Cisco UC520-16 feature operation
Call Forward	Strata CIX	Yes
	Cisco UC520-16	Yes
Call History	Strata CIX	Based on Strata CIX feature operation
	Cisco UC520-16	Based on Cisco UC520-16 feature operation
Call Park Orbits	Strata CIX	Calls can be Parked and Retrieved only on the Strata CIX system
	Cisco UC520-16	Calls can be Perked and Retrieved only on the Cisco UC502-16 system
Call Pick Up	Strata CIX	No
	Cisco UC520-16	No
Call Transfer	Strata CIX	Yes - Note that when a call is transferred from one system to the other then, transferred back to the first system the call will connect through two SIP trunks. Each transfer from one system to the other will add another trunk.
	Cisco UC520-16	
Call Transfer Immediate	Strata CIX	No
	Cisco UC520-16	No
Call Transfer With Camp-on	Strata CIX	Yes
	Cisco UC520-16	Yes
Call Waiting	Strata CIX	Yes
	Cisco UC520-16	Yes
Caller Identification	Strata CIX	Yes
	Cisco UC520-16	Yes
Caller Name Identification	Strata CIX	Calling Number only
	Cisco UC520-16	Yes
(Sheet 2 of 8)		

System Feature Inter-Operation (continued)		
Strata CIX Feature	Initiate	Operation
Calling Number Identification	Strata CIX	Yes
	Cisco UC520-16	Yes
Centralized Attendant Console	Strata CIX	No
	Cisco UC520-16	No
Centralized Voice Mail	Strata CIX	No
	Cisco UC520-16	No
Class Of Service	Strata CIX	No
	Cisco UC520-16	No
Class Of Service Override	Strata CIX	No
	Cisco UC520-16	No
Conference On Hold	Strata CIX	Yes - If the Cisco UC520-16 participant places the call on hold the conference will hear Cisco MOH.
	Cisco UC520-16	Yes - If the Strata CIX participant places the call on hold the conference will hear Strata CIX MOH.
Conferencing	Strata CIX	Yes
	Cisco UC520-16	Yes
Consultation Hold	Strata CIX	Yes
	Cisco UC520-16	Yes
Continuous DTMF Tone	Strata CIX	Yes
	Cisco UC520-16	No Cisco UC520-16 stations cannot send DTMF
Day / Night Modes	Strata CIX	Internal function only
	Cisco UC520-16	Internal function only
Dial For Quick Launch	Strata CIX	No
	Cisco UC520-16	No
Dialed Number Identification Service	Strata CIX	No DNIS information sent to other system
	Cisco UC520-16	No DNIS information sent to other system
Direct Inward Dialing	Strata CIX	Yes
	Cisco UC520-16	Yes
(Sheet 3 of 8)		

System Feature Inter-Operation (continued)		
Strata CIX Feature	Initiate	Operation
Direct Inward System Access	Strata CIX	Into the Cisco UC520 - No
	Cisco UC520-16	Yes
Direct Station Selection Key	Strata CIX	No
	Cisco UC520-16	No
Directory Assistance	Strata CIX	No
	Cisco UC520-16	No
Directory Number Presentation	Strata CIX	No
	Cisco UC520-16	No
Distinctive Ringing	Strata CIX	Based on Cisco UC520-16 feature operation
	Cisco UC520-16	All calls from the Cisco UC520-16 are treated as incoming trunk calls
DND / Busy Override	Strata CIX	No
	Cisco UC520-16	No
Do Not Disturb	Strata CIX	Yes
	Cisco UC520-16	Yes
Do Not Disturb Override	Strata CIX	Internal stations only
	Cisco UC520-16	Internal stations only
Door Lock Control	Strata CIX	No
	Cisco UC520-16	No
Door Phone	Strata CIX	No
	Cisco UC520-16	No
Emergency Call	Strata CIX	The destination can be any station.
	Cisco UC520-16	Via DISA only
Emergency Paging	Strata CIX	The paging stations can be CIX stations only
	Cisco UC520-16	Via DISA only
Emergency Ring Down	Strata CIX	No
	Cisco UC520-16	No
Enhanced 911 (E911 Interface)	Strata CIX	Internal only over local trunks
	Cisco UC520-16	Internal only over local trunks
(Sheet 4 of 8)		

System Feature Inter-Operation (continued)		
Strata CIX Feature	Initiate	Operation
Exclusive Hold	Strata CIX	Yes
	Cisco UC520-16	No
Executive Override	Strata CIX	No
	Cisco UC520-16	No
External Ringing Repeat	Strata CIX	No
	Cisco UC520-16	No
Flash	Strata CIX	No
	Cisco UC520-16	No
Group Paging	Strata CIX	No
	Cisco UC520-16	No
Hands Free Answer Back	Strata CIX	No
	Cisco UC520-16	No
Handset Off hook Call Announce	Strata CIX	No
	Cisco UC520-16	No
Hot Dialing	Strata CIX	Based on Strata CIX feature operation
	Cisco UC520-16	Based on Cisco UC520-16 feature operation
Incoming Call Identification	Strata CIX	Internal only
	Cisco UC520-16	N/A
Intercept	Strata CIX	No
	Cisco UC520-16	No
Least Cost Routing	Strata CIX	Under investigation
	Cisco UC520-16	Under investigation
Lost Call Treatment	Strata CIX	No
	Cisco UC520-16	No
Manual Voice Recording	Strata CIX	Recording on Local Voice Mail system
	Cisco UC520-16	Not supported
Message Waiting	Strata CIX	Based on Cisco UC520-16 feature operation
	Cisco UC520-16	Yes - Strata CIX voice mail operation
(Sheet 5 of 8)		

System Feature Inter-Operation (continued)		
Strata CIX Feature	Initiate	Operation
Multiple Appearance	Strata CIX	A station in one system cannot appear as a line appearance in the other.
	Cisco UC520-16	No
Multiple Calling	Strata CIX	No
	Cisco UC520-16	Based on Cisco UC520-16 feature operation
Music On Hold	Strata CIX	Calls placed on hold hear MOH from the system in which the call is held.
	Cisco UC520-16	
Off hook Call Announce	Strata CIX	Not supported by Cisco520-16
	Cisco UC520-16	No
Off hook Camp on	Strata CIX	Yes
	Cisco UC520-16	Yes
Outgoing Call	Strata CIX	Yes
	Cisco UC520-16	Yes
Phantom DN Key	Strata CIX	Treated the same as any DN
	Cisco UC520-16	Treated the same as any DN
Recall Treatment	Strata CIX	No
	Cisco UC520-16	No
Relay Control	Strata CIX	Not supported in Cisco UC520-16
	Cisco UC520-16	Via DISA
Release / Answer Button	Strata CIX	Not supported by Cisco UC520-16
	Cisco UC520-16	Yes
Release Button	Strata CIX	Yes
	Cisco UC520-16	Yes
Ring Over Busy	Strata CIX	Yes
	Cisco UC520-16	Yes
Ringing Transfer	Strata CIX	Yes
	Cisco UC520-16	Yes
Simplified Attendant Console	Strata CIX	No
	Cisco UC520-16	N/A
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System Feature Inter-Operation (continued)		
Strata CIX Feature	Initiate	Operation
Single Touch Button	Strata CIX	Yes
	Cisco UC520-16	Based on Cisco UC520-16 feature operation
Softkey Override for Silent Message	Strata CIX	No
	Cisco UC520-16	No
Speed Dial	Strata CIX	Call from Internal Speed Call list only
	Cisco UC520-16	Call from Internal Speed Call list only
Station CO Line Access	Strata CIX	No
	Cisco UC520-16	Via DISA
Station Hunting	Strata CIX	Yes, can call into a Cisco UC520-16 Hunt Group - Cisco UC520-16 stations cannot be added to Strata CIX Hunt Groups
	Cisco UC520-16	Yes, can call into a Strata CIX Hunt Group - Strata CIX stations cannot be added to Cisco UC520-16 Hunt Groups
System Call Forward	Strata CIX	Yes
	Cisco UC520-16	Yes
System Live Programming	Strata CIX	No
	Cisco UC520-16	No
Tandem CO Line Connection	Strata CIX	Yes
	Cisco UC520-16	Yes
Through Dialing	Strata CIX	No
	Cisco UC520-16	No
Toll Restriction	Strata CIX	Based on Cisco UC520-16 feature operation
	Cisco UC520-16	Based on Strata CIX feature operation
Toll Restriction Override by System Speed Dial	Strata CIX	No
	Cisco UC520-16	No
Tone First / Voice First	Strata CIX	Not supported by Cisco UC520-16
	Cisco UC520-16	Cannot initiate a VF call to Strata CIX stations
(Sheet 7 of 8)		

System Feature Inter-Operation (continued)		
Strata CIX Feature	Initiate	Operation
Transfer direct to Voice Mail	Strata CIX	Based on Cisco UC520-16 feature operation
	Cisco UC520-16	Yes - After the call is answered by a Strata CIX station
Transfer Privacy	Strata CIX	No
	Cisco UC520-16	No
Voice Mail	Strata CIX	Based on Cisco UC520-16 feature operation
	Cisco UC520-16	Based on Strata CIX feature operation
Voice Mail Conference	Strata CIX	Yes
	Cisco UC520-16	Based on Cisco UC520-16 feature operation
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