Datatal GATEWAY Configuration

VERSION 1.2

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Datatal Gateway overview

Datatal Gateway is a communication platform primarily for telephony. Gateway is closely integrated with the Datatal Flexi platform, so that all administration and configuration is done in the same interface. In addition to the existing configuration available in Flexi, Datatal has added some new concepts.

In the examples in the manual below, the headings are clickable, they show examples of what it looks like in the AdmiTal configuration.

Trunks, routes and groups are primary functions that are new and will be explained in more detail below. To explain these new functions, they need to be put in context.

Think this way ...

The entire Datatal platform; Flexi/Gateway/WonderPhone is a house. Each company in Flexi is a room, the door out is a trunk and the road to the right room is led by a route. Routes are also used within the room to find the right destination. What is to be led is a call.

Restrictions/Considerations

Known limitations

- An extension must be unique in a system, this is a limitation in Flexi that will be addressed in a future release, Gateway itself has good support for several extensions with the same extension number. A temporary solution is to use either a short number or an alias. Read more about this in this documentation.
- User ID must be unique, it is used for logging in to WonderPhone/Apps/SIP terminals.
- Windows 2016 server, we have done all tests on the 2016 server, and started testing on 2019.
- Operators: We have tested Gateway with Tele2 as a telecom operator, tests have begun for other operators (2018-11-27).
- Important to think about regarding mobile numbers and other numbers that can be set in call profiles: It is possible to enter any number, **Datatal takes no responsibility if this is abused.**
- The size of the system can determine whether Microsoft SQL Server Express or Microsoft SQL Server Standard edition should be used. Express have big limitations in performance and capacity, tests show that this can cause problems/delays on larger systems. This can also result in systems stopping after a couple of years, when the database size of an Express is max. 10 GB. We also recommend that SQL server is installed on a separate machine for larger systems.
- So far, there is no built-in conference/tripartite call in the solution. It may possibly work to initiate this via a terminal, but then it is the terminal that merges the audio streams.



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User

In order for a user to gain access to Datatal Gateway to make calls and to register terminals, they must first be entered in the AdmiTal web and assigned a license. The various user licenses control which functions a user can access and use in the Datatal Gateway.

Log in to the AdmiTal web with admin rights.

- 1. Go to Användare -> Ny Användare
- 2. Enter Efternamn, Förnamn, E-post and Anknytning
- 3. Then select the desired license level in the **Gateway licensnivå** dropdown menu. If there are no options, it is likely that there are no available licenses or that they have not been allocated to the company you are currently working on.
- 4. If the user should be an administrator for the company in the end user web, (Fell Ogiltig hyperlänkreferens.) then check Lokal admin

Användare	•	Användare	
Login			
Data Telefon		Efternamn:	Kalström
Länkar Röstbrevlåda		Förnamn:	Erik
Bild			
Rutter		E-post:	erik@datatal.se
WonderPhone			
Övrigt		Anknytning:	3018
Gateway		Gatoway liconsniyå	Chandend
vidarekopplingar		Gateway incensitiva	Standard
		Företag:	Datatal AB
		✓Kalenderkoppling	3
		Döli för användar	- e
			-
		Schema:	[ingen] T
	•	Text språk:	Svenska 🔻
		Lokal admin:	
			Spara Avbryt Verkställ

- 5. Select the tab Login
- 6. Select the user type, it also controls what rights the user will have in the system, both in Presentity and other products.
- 7. Enter the e-mail address in the box **Användar-ID** and the users default password in **the box Lösenord**. Then check **Användare måste byta lösenord vid nästa inloggning**
- 8. Should the user be an operator, then check Telefonist

	_		
Användare	^	Login	
Login			
Data Telefon		Användartyp:	A user 🔹
Länkar Röstbrevlåda		Användar-ID:	erik@datatal.se
Bild Rutter		Domännamn:	
WonderPhone Övrigt		Lösenord:	••••
Gateway Vidarekopplingar		☑ Användare	måste byta lösenord vid nästa inloggning
		Användare 🗌	kan bara logga in ifrån servern
		Login:	ОК 🔹
		Telefonist:	
	-		
	_		
			Spara Avbryt Verkställ

- 9. Select the tab **Data**, Fill in the necessary data which will then be searchable by the operator and other users in the company.
- 10. Select the tab Telefon
- 11. Enter the user's mobile number in the field **Mobil**, this will then be available to make twinned calls.

i		- 1 6	
Användare	^	releton	
Login			
Data Tolofon		Accessnummer:	Test
Länkar			
Röstbrevlåda		Mobil:	0709 24 04 01
Bild		Alt toles	
Rutter		Alt. tele:	
Mobila enheter		PSTN	
Övrigt			
Gateway		Fax nr:	
Vidarekopplingar			
		Svarställe:	
		E "Manage	
		Ersattare:	
		Kollega:	
		Ronegu.	
	-	Bostad:	
			Spara Aybryt Badara Vorkställ
			Spara Avbryt Radera Verkstall

- 12. Select the tab Röstbrevlåda
- 13. Check **Har röstbrevlåda** to access Presentity. If this is not checked, no Presentity license is allocated and the user cannot use the Presentity app.
- 14. Select the tab **Bild** to upload an image to the user.
- 15. Select the tab WonderPhone, specify the type of WonderPhone license to be used. Standard= Softphone, Basic = CTI Mode
- 16. Leave the other fields blank, these are not needed when using Datatal Gateway.
- 17. Select the tab **Gateway**, these settings can also be made in the company settings and then all users inherit these settings.
 - a. Max samtal The number of calls a user can have at the same time
 - b. DTMF funktionsknappar buttonpress series to activate DTMF function keys, for example **
 - c. Ej svarstid The time before an incoming call proceeds to the non-response destination
- 18. On the **Vidarekopplingar** tab, the destinations are set for the different call forwarding cases. Leave this blank.
- 19. Spara save the user.

Extra features

When you save a user you get access to some more functions. These functions are usually found on the company itself, but can also be configured specifically for the user.

Personlig nummerhantering - Personal number management

This is the user's personal white/black list. Here you can add numbers that should be blocked from calling the user or numbers that should ring through to the user even though it is diverted. There is also the possibility to link a specific call profile to a number. More about this in <u>nummerhantering</u> and <u>samtalsprofiler</u>

Samtalsprofiler – Call profiles

In the **"Samtalsprofiler"** Call Profiles section you can add personal profiles that only apply to this user. Those who are **"Virtuella profiler"** virtual profiles come from the company's call profiles. Keep in mind that the user automatically also gets a profile for his/her extension. More about how call profiles are configured you find <u>here</u>

Registreringar - Registrations

Here you see a list of all the user's active registrations, i.e. which terminals it has and how long they will be active. SIP terminals normally re-register about once an hour. It is possible to delete a registration, then Gateway will not dial out to that device.

	Percentia nummerbantering				
Personing nummernantering					
Nytt nummer					
vartlistad					
Namn	Т	elefonnumme	r Träf	far	Samtalsprofiler
₴ Inkommande/Utgående	04982	233099	0		
itlistad					
Namn	Т	elefonnumme	r Träf	far	Samtalsprofiler
₹ Vitlistad	04982	2530*	0		
₽ Vitlistad med påknacking	04982	232401	0		
-					
amtaispronier					
Ny samtalsprofil					
Namn → Dynamiska fält T	elefonnummer				
Privat mobil (Privat mobil 07023456789				
Virtuella profiler					
irtuella profiler					
^r irtuella profiler Namn → Dynamiska fält	Telefonnummer	Källa			
Yirtuella profiler Namn → Dynamiska fält Anknytning	Telefonnummer 101	Källa Anknytning			
Yirtuella profiler Namn → Dynamiska fält Anknytning Huvudnummer	Telefonnummer 101 081288100	Källa Anknytning			
Yirtuella profiler Namn → Dynamiska fält Anknytning Huvudnummer Mobil Mobil	Telefonnummer 101 081288100 0709240401	Källa Anknytning Mobil			
Virtuella profiler Namn → Dynamiska fält Anknytning Huvudnummer Mobil Mobil	Telefonnummer 101 081288100 0709240401	Källa Anknytning Mobil			
Virtuella profiler Namn → Dynamiska fält Anknytning Huvudnummer Mobil Mobil egisteringar	Telefonnummer 101 081288100 0709240401	Källa Anknytning Mobil			
Yirtuella profiler Namn → Dynamiska fält Anknytning Huvudnummer Mobil Mobil egisteringar Namn IP-adress Kontakt	Telefonnummer 101 081288100 0709240401 URI Registerin	Källa Anknytning Mobil Mobil			

Rutter - Routes

In Datatal Gateway, routes are a central feature. In a route you can specify and modify the call behaviours such as which number to display or where to call. A route must be met in some way, how a route is met is described below. If a route is met or not is calculated in the database, which means that it is possible to test the entire flow without even making a call, more on this in the section **"rutt-tester"** route tests.

A route has several configuration values. How these values work is described below with examples to understand what they do in their simplest form.

Datatal Gateway will include all routes within a given context, all routes together form a table on which the calculations are performed. Think of it as a firewall configuration where routes are firewall rules and all rules create a mutually weighted firewall rule table.

We recommend that you read the entire document before making a route, in order to gain a basic understanding of how it works.

In AdmiTal web under **Gateway -> Rutt** there is a list of existing routes and here you can add more.

Match

In order for a route to be met (executed), it must be matched in some way. Match to "*Match till*", Match from "*Match från*", but can also be matched on context, more about context later.

Exemple match till – match to

A practical example is to modify an incoming call from the operator;

From:	070123456
To:	0498253017

- Here we want to modify so that the call searches for 3017 in Datatal Gateway.

Example of route that	at would solve this:
Match till:	0498253017
Ersätt till:	3017

- In this route, the call to party will be modified and after that search for the number 3017. This corresponds to a classic DDI plan.

Exemple *match från* – match from

A practical example where we want to modify a from-number when calling externally. We do not want to show our internal extension, it should be changed to our direct dial number:

From:	3017
То:	070123456

- Here we want to modify 3017 so that when the recipient receives the call, the complete direct dial number is displayed.

Example of route that would solve this:

Match från:	3017
Ersätt till:	0498253017

- Here we change the from-number to a direct dial number.

Context

In the examples above, we also need to specify when to do so. If you create a route where we change the from-number like in the example, ALL calls made from that number would be modified. This means that 3017 will always look like it is calling from 0498253017 even if it calls a colleague. We solve this by putting the route in a context. We want this to happen only on an outgoing call to an external trunk. Read more about trunks in that chapter.

One type of context is telephony trunks, other types of context are, for example, users or companies.

Exemple context

If we use the *match from*-example again:

From:	3017
То:	070123456

Match från:	3017		
Ersätt från:	0498253017		
	1.		

Till kontext: telephony-trunk -> [the name of the trunk connected to the operator]

 Now, when 3017 dials, outgoing numbers will be modified to 0498253017 and go out on the trunk. But now, ALL calls made by 3017 will meet this route. We need to specify the route more even more. We want this to happen only when it is an external outgoing call. We add *match to* on the same route.

Match till: 070123456

- Now it will be correct, the route will only be met when 3017 calls 070123456. The caller ID will be 0498253017 and the call will go out on the trunk to the operator.

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Wildcards

The above examples work for their purpose but are very blunt and we would need to set up a route per incoming number and also one per outgoing number.

We can easily solve this with Wildcards. As mentioned before, all calculations of routes is done in the database, which means that we can also use built-in functions for this. More about <u>SQL-wildcards</u>

Briefly about Wildcards that will be used below.

% – One or more characters

_ – Explicitly one character

! – Not equal to

[0-5] – A character between 0-5

Exemple outgoing

We continue with the example of the outgoing call:

From:	3017
То:	070123456

Now we add wildcard so that we meet all the numbers from the 3000-3099 series.
 Gateway will include what is below percent characters and put it in the *ersätt från* field.
 I.e. 30<u>17</u> will become 04982530<u>17</u>

Match från:	30%
Ersätt från:	04982530%
Till kontext:	telephony-trunk -> [the name of the trunk connected to the operator]

 Finally, we want to meet all numbers that are longer than 4 digits, we change Match till to contain 5 underscore and a percent sign. This means that if the number is 5 digits or longer, the route will be met

Match till: ____%

What we created is an external-outbound route for all numbers in the 3000-3099 series.

There is an alternative version for the Match till field. In the above example, the route meets ALL numbers that are more than 5 characters but it may be that the user wants to call a number that is no longer than 5 digits but still meet the route. In the above example, this would also work;

Match till: !30[0-9][0-9]

This means that if it is not the 3000-3099 series then this route will be met.

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Exemple incoming

Now that we have gone through wildcards on outgoing calls, we also make a route for incoming calls.

From:	070123456		
То:	0498253017		

Exemple off route; Match till: 04982530% Ersätt till: 30%

- But we also want to make sure that the call is external. So we add a from context "från kontext" stating the external trunk.

Från kontext: telephony-trunk -> [the name of the trunk connected to the operator]

What we have created is an external-incoming route to meet all the 3000-3099 series extensions.

Ruttens omfång – Route scope

The route's scope is used to further determine in which context a route is to be executed. One example is to set the scope of the route to a company for which it should apply.

Exemple

Company A has 4-digit extensions and wants to be able to call externally if they dial 5 digits or more. They have a route as our "outgoing" above.

Then we have company B which has 3 digits in extension length, they want calls to go externally on 4 digits or more, they have an "outgoing" route with 4 underscore and a percentage sign.

If we do not set these routes with a route scope, both routes will be taken into account. The routes then become company-independent.

From:	3017		
То:	070123456		

Ruttens omfång:	organization -> Company A
Match från:	30%
Ersätt från:	04982530%
Till kontext:	telephony-trunk -> [the name of the trunk connected to the operator]
Match till:	%

Our recommendation is to set up all routes with "organization" and company. However, there are exceptions, the next example shows such an exception.



Exemple 2

Here we have 3 routes but 2 different number series. We want to break up the route above for "outgoing" calls.

We have the number series 0498253000-3099 and 0812881100-199, the calls should go out on the same trunk. In the example below, we call either from the 100 series or the 3000 series.

We dial a number that is 5 digits or longer, i.e. "outgoing" route is met. It points the call to the context "External trunk". "External trunk" itself has 2 routes within its range which are also executed, i.e. changes from-number.

Rutt "UTGÅENDE"	
Vikt:	50
Match till:	%
Till kontext:	Extern trunk

Butt "Ändra 09 savi	
Kutt Andra 08 sen	en
Vikt:	45
Match från:	1%
Ersätt från:	08128811%
Ruttens omfång:	Extern trunk

Rutt "Ändra 3000 serien"			
Vikt: Match från: Ersätt från:	45 30% 04982530%		
Ruttens omfång:	Extern trunk		

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Vikt - Weight

The weight of the route determines when it should be executed compared to other routes. The route that has the highest weight (max 255) will be executed first, if it is not met, the comparison will proceed in the route table.

Exemple 1

Here we have 3 routes to different operators in different countries.

If 3017 dials 00471234567, Datatal Gateway will meet route "OUTGOING NORWAY" because it has a higher weight than "OUTGOING SWEDEN", i.e. it meets earlier. Note that they are very similar except for *Match till*.

All the **match** expressions must be met for the route to be executed.



There is no limit to how many routes you can use or if their weight is shared as in the example above with the Danish and Norwegian route.

It is not recommended that 2 routes have the same weight and the same match expression.

For example, *Match till* ____% and _____% i.e. has 3 or 4 underscores but is otherwise the same with the same weight. In this case, the first expression of 4 digits or more and second of 5 digits or more is met. This means that if the number you call is 6 or more digits, both will be valid. Avoid this. It is best solved with different weights.

Omstyrning - Diversion

This is used when manipulating diversions (diversion headers). Some operators require this to be sent to them if the call goes through Gateway. One example, a twinned extension gets a call to its mobile through Gateway. In order for Gateway to be able to present the original incoming number (the calling party), a correct redirection number must be sent, i.e. the actual number (receiver) being called.

We solve this with a route.

Exemple Diversion

To: 0498253017 From: 0701234567

 Behind 0498253017 is extension 3017. The call goes through a regular incoming route as described in previous sections. But 3017 also has a twinned mobile that should ring. In order for the call to be sent out, the actually called number must be included in the diversion header.

Ruttens omfång: telephony-trunk -> external trunk

Omstyrning match: 30%

Ersätt omstyrning: 04982530%

- Important to note is that we set this on the outbound trunk because it only has to be executed there. If it is set on the company or not at all, there is a risk that the voicemail and other functions will get the full number as the searched number.



Prioritet - Priority

Each route can be assigned a certain priority. This is used if you want to give the calls that hit the route an extra priority. This will be used in group functions in Gateway. More features regarding priority will come later.

Utringningsordning – Call distribution **TODO**

Utringningstid – Call time

It is used if you want to specify how long a route should attempt to call the destination. If set to 0, it will ring until the caller hangs up.

Other

There are some checkboxes that can give routes special behaviours.

Checkbox	Description		
Privat	Private. The SIP signaling will send PAI to the counterparty		
Dold	Hidden. The call is not signaled at CTI, i.e. no one can see that the receiver or the caller is busy		
Avstängd	Turned off. This route will not be included in the route table, excluded		
Oönskad	Unwanted. If this route is encountered, <u>SIP kod 607</u> will be sent on SIP back to the caller, unwanted		
Förbjuden	Forbidden. Will cancel the call and send 403 to the counterpart, forbidden		
Förgrening	Branching. The call will be executed according to this route but also continue in the route table to see if more routes are met		
Testläge	Test mode. To test a route before it is put into operation, you can put it in test mode and use the route test tool to verify the function		

Skapad/Träffar – Created/Hits

Created shows when this route was originally created.

Hits show how many times this route has been executed from the time it was created.



Virtuella rutter – Virtual routes

In the AdmiTal web under **Gateway->rutt->virtuella rutter** there is a table that shows all routes that will be calculated when the Gateway receives a call. All callable numbers in the company are listed there; starting points in Flexi and created users will automatically be included in this list. These are not routes that we created earlier but they are created dynamically (automatically) according to the system configuration. We also see the routes we created.

This table can also be called a route table for Gateway.

Rutt-logg – Route log

In the AdmiTal web under **Gateway->rutt->route log** we have a table that shows the latest route hits. This is useful for a troubleshooting purpose.

Rutt-test – Route test

In the AdmiTal web under **Gateway->rutt->rutt-test** there are tools for verifying/testing/troubleshooting the entire route logic.

In From and To you enter from whom you want to make the call and to whom. There will be no real calls made but the logic will be executed.

Diverter: if you want to test with a redirected number.

Scope: If you want to specify a specific scope (route range), default is the current company.

From context: Where does the call come from? If you want to test an externally incoming call from the operator, this should be the incoming trunk.



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Samtalsprofiler – Call profiles

In order for a user to be able to change which number is displayed when calling out, he needs to select a call profile. A call profile can be created per user or per company. A profile created for the company is automatically (inherited) provided to the users. Call profiles are available under **användare->samtalsprofiler**, or for companies under **Gateway->samtalsprofiler**.

There are 2 types of profiles, those that are created automatically and those that are created manually. Those created automatically are things like extensions and groups. That is if the user is a member of a group, it automatically gets the option to display the group number during outgoing calls.

The manually created call profiles are made under companies or users.

Example of a manually created call profile

Main number

We want all users to be able to dial out and display the main number. In **Företag-Redigera företaget->Ny samtalsprofil**... present in the form.

Enter the name of the profile, this will be shown in the user interfaces. Set the type to *Telefonnummer*, then enter the number and finally save.

Mobile number

We want all users to be able to call out displaying their registered mobile number. In **Företag->Redigera företaget->Ny samtalsprofil**...

Enter the name of the profile, for instance *mobile number*, this will be shown in the user interfaces. Set the type to *Dynamiska fält*, then choose *mobile* in the list and finally save.

Anonymous

We want all users to be able to call out displaying Anonymous. In **Företag->Redigera företaget->Ny samtalsprofil**...

Enter the name of the profile, for instance *anonymous*. Set the type to *Telefonnummer*, then enter *Anonymous* as the phone number and save.



Nummerhantering – Number plan

There is often a demand to be able to block a number or to call through even though the user is diverted. This is easily solved by adding a number to the number plan.

It is possible to add numbers per company or per user. For the company; In Gateway->Nummerlista. Lägg till Nytt nummer...

Туре	Description
Svartlistad - Blacklist	Bidirectional. It is not possible to call or receive calls from this number, they will be blocked
Svartlistad inkommande - Blacklist incoming	A call from this number will not be able to call in, but it is possible to call this number
Svartlistad utgående - Blacklist outgoing	This number can call in but it is not possible to call it
Vitlistad - Whitelist	The number can call even if the user is diverted, the call will call through
Vitlistad påknackning - Whitelist call-waiting	The number can call through even if the user is diverted. If the user is busy on the phone, the call will be forwarded and then the mobile/terminal can get a call-waiting. It is required that this is supported by the recipient unit
Endast för presentation - Only for presentation	Used if you only want to use the Call profiles for one number, otherwise no special handling.

Type: select the desired type

To all numbers you can associate a call profile to ensure that you show the right number, for example if you choose to call a blacklisted number you might want to use a call profile that displays anonymous or the company's main number.

Number management also supports **Wildcards**, i.e. if you want more numbers to be found on the same expression. For example 04982530* will meet all Datatals numbers.

Gateway	/	Nummerhantering	/	Redigera
---------	---	-----------------	---	----------

Redigera		
Тур:	≓ Vitlistad	T
Telefonnummer:	04982530*	
Träffar:	0	
Samtalsprofiler:	Mobil ()	•
	Spara Avbryt	Radera Verkställ



Kortnummer – Short number

An easy way to convert a short number to something completely different, for example 9 goes to the operator.

Can also be diverted to external numbers, 112 goes to 0379112XXX XXX=kommun ID

The Flexi applications do not fully support the same extension number in multiple companies. This means that full-length numbers should be used, but if the user wants to be able to dial an extension, then short numbers should be used to translate the short numbers into full-length numbers.

Short numbers support the same type of rules as routes using **wildcards**. I.e. it is possible to build an expression that covers an entire number series instead of listing individual short numbers for each user.

- Namn The name of the short number
- Match till What to meet, for example, an extension
- Ersätt till What should it be translated into, for example, a full-length number
- Träffar Indicates how many times it has been met
- Example of an expression that converts Datatal's extensions into full-length numbers
- Namn Datatal number series converter
- Match till 30___
- Ersätt till 04982530___

Gateway / Kortkoder / Redigera

Redigera	a		
<u>INFO</u>			
Namn	Datatal nummerserie konverterare		
<u>Till</u>			
Match till:	30		
Ersätt till:	04982530		
Träffar:	0		
	Spara Avbryt Radera Kortkod Verkställ		



Kortkommandon – Short code

There may be times when you want to execute commands in Datatal Gateway where there is no available interface, for example if you have a fixed terminal or DECT terminal and you do not have access to the Presentity app or WonderPhone. Then you can use short codes that are pre-configured in the system. An example may be calling as anonymous or transferring an ongoing call.

These commands can be executed either in the audio stream or when a call is initiated, it depends on the function to be used. In AdmiTal where these commands are configured, it is clear when it can be used. In the configuration one can choose a default value (parameter) but it can also be dynamic. Exemple:

**44*N# means that N is dynamic but if a default value is entered in the configuration, it is used if nothing else is set.

For example, we say that **44*N# means *log out of group*, where N is the group's extension. If the default value is 3031, it is enough to press **44* to log out of group 3031.

Log in to AdmiTal web, go to Gateway -> Kortkommando

- 1. Enter a command, it must start with *
- 2. The default parameter is optional
- 3. Select category and function
- 4. Save

Redigera	
Kort kommandon:	**44*N#
Standard parameter:	3031
Funktion:	Groups 🔻 Logga ur grupp 💌
Beskrivning:	Loggar ur grupp, ange parametern vilken grupp som skall loggas ur. Ingen vald grupp kommer användaren loggas ur alla grupper
Exempel:	*03*N#
Kan utföras i samtal:	Ja
Kan utföras utan samtal:	Ja
	Spara Avbryt Radera Kort kommandon Verkställ



Grupper - Groups

In Datatal Gateway there are call groups. In each group you configure members, weekly schedule, address (extension for the group) and which state it should have at open and closed.

In group mode, we set what is to be played during queuing, how the call pattern should be etc. More about group mode below.

Exemple Group configuration

Overview group example



In the example above, the group "Support" has a weekly schedule and 2 linked group modes, a "day mode" and a "closed". Each mode in itself determines how a call should be handled when it enters the group. The group contains some users with their own priority.

SETTING	DESCRIPTION	
NAME	A name that will appear in various interfaces such as WonderPhone, apps, etc.	
DESCRIPTON	Describes the group, used for example to document what the group does.	
GROUP ADDRESS	The groups extension.	
CURRENT STATE	Here you see the current state, if there is a return button this means that the state is activated manually and the button makes the state return to what is determined by the schedule.	
STATE WHEN OPEN	Which active state the group should have when open. Group state determines what to play in the queue and how the call transfer is made.	
STATE WHEN CLOSED	Which active state the group should have when closed. The group state when closed should go to an overflow function. More about this in group state below.	
ADD GROUP EXTENSION TO CALLER'S NUMBER	Used if Gateway should add the group's address when transferring to the member. This means that the receiving telephone displays if the call has gone through a group, for example 0498253030*0701234567 where the group is 0498253030 and 0701234567 is the caller.	
OVERFLOW WHEN NO LOGGED IN MEMBER	Used if no member is logged into the group, and the call should go directly to the configured overflow destination. If the destination is not configured, the call will be disconnected.	
WEEKLY SCHEDULE	Specifies which hours the group should be open and closed. There is also the possibility of setting a lunch closing. Datatal will expand this function in the future with the possibility of setting additional states more dynamically. Make sure that the starting hours does not start after the stopping hours, because then the form will be cleared for that day.	
MEMBERS	In the box "Available members" you find all users in the company, these can be added as members of the group. Once they are added as members, you can configure these with: - Log in - Priority - Call pattern Log in is the group member's current state in the group, if you check this and save, it will be logged in Priority is the priority the user has in the group. Higher priority receives calls before others, however, this is affected by which group state is active. For example: for a group state that has parallel dialing, priority will not apply. <i>Call pattern</i> ; this determines how long it should be calling this member before the call goes on in the list. 0 means that it will use the default time, i.e. 30 seconds.	



Gruppläge – Group state

Group state determines the behavior of the group and what notifications are made when calls come in. The state can also define whether the group is closed or not, i.e. if it is possible to call in to the group, or if the call should end up in overflow.

Exemple Group state configuration

SETTING	DESCRIPTION
NAME	The name of the group state
CALL PATTERN	See table below.
DYNAMIC EXPANSION	This is available on some of the call patterns. The setting means that if it first rings on member 1, and when it does not answer, the call goes on to member 2, but with this checked, it will also continue to ring on member 1 etc.
PLAY RINGTONE ON CONNECTION	Stops playback of queue message and plays ringtone during connection.
PARALLEL FORWARDING OF MULTIPLE QUEUEING CALLS	If there are more than one call queueing, multiple calls can be connected in parallel.
AVAILABILITY	This indicates if the group is available in this state or not. This does not control the behavior off the calls.
OVERFLOW	Antal samtal som kan komma in i denna grupp. Om ingen destination är konfigurerad kommer samtalet att kopplas ned.
MAX NUMBER OF SECONDS	How many seconds a call is queuing before moving on to overflow.
DESTINATION AT OVERFLOW	Extension to which overflow should send the call.
GREETING	This is played before the caller enters the actual queue in the group.
QUEUE MESSAGE	Add an audio file to play when queuing calls are in the group. The loop is repeated automatically. There are buttons to add and delete messages and breaks.

Call pattern	Description
Member priority	Dialing according to the priority of the members, two with the same priority will be dialed simultaneously.
Parallel	Calling everyone at the same time regardless of priority.
Sequential	Calling according to the priority list, but if two have the same priority, it will only call one at a time.
Longest available	Calling the person who has been available the longest in the group regardless of priority.
No automatic forwarding	The call will be added to the group but not forwarded to a member. Members must answer the call via, for example, WonderPhone or button on the physical terminal.
Go directly to the overflow destination	The call will go directly to the group's overflow destination. It will not call anyone in the group.
Go to overflow destination, play message first	This is used if you want to play a message before the call goes to overflow, eg. night message or any other type of message.



"Binding"

In order for Datatal Gateway to answer calls on SIP or other interfaces, these must be configured. The configuration is found in the AdmiTal web under *System->Gateway*

When configuring a "binding" one can either define an IP address or a network card (MAC). <u>The</u> "bindings" table in AdmiTal shows if Gateway can open that port on the server.

Exemple in AdmiTal

SETTING	DESCRIPTION	
ACTIVATE	Check to activate this "binding"	
STATUS CODE	0=offline, 1=Okey	
STATUS TEXT	The latest text that Gateway has saved. If more than one socket is open, it will show	
	ow many it is.	
MACHINE ID	Reserved for the future, should be set to 1	
NETWORK		
TRANSPORT	Which transport this "binding" should apply to. See the table below for	
	recommended settings.	
PROTOCOL	Which protocol Gateway should use for this "binding".	
LOCAL IP	Which local IP (on the server) should be used. Can be left blank if you enter the network card setting.	
LOCAL PORT START	Which start port should be used, if only one port is to be used then enter it here.	
LOCAL PORT LAST	The last port in a "range".	
NETWORK CARD	Enter the network card MAC address 00:00:00:00:00 to which Gateway should bind, if no IP is specified, it will bind to all available on this NIC	
NAT RULES	Which IP should Gateway display for other networks. Keep in mind that it goes from top to bottom, should these 2 rules be reversed, the other rule would never be met. EXEMPLE 192.168.0.0/24 = 192.168.50.67	
	0.0.0.0/0 = 82.115.148.6/	
TRAFFIC FILTERS	See explanation below. Important: Without proper configuration of this, there is a risk that nothing will work.	
QOS LEVEL	Which QOS should the packages be tagged with.	
CERTIFICATE		
FILE PATH	Path to certificate.	
PASSPHRASE	Password for the certificate.	
STORE	Which certificate store this certificate is located in.	
THUMBPRINT	Which thumbprint does this certificate has.	
SUBJECT	Certificate Subject	
TRUNK		
TRUNK	Select a trunk that this "binding" should be associated with, i.e. no other trunk can	
	make use of this "binding".	



SIP TLS

For secure communication between Flexi and Terminals, you should use SIP TLS instead of TCP/UDP. Do this:

- 1. Instal a certificate, in the example below we will use Let's Encrypt.
- 2. Open powershell on the computer. Type: Set-Location Cert:\LocalMachine\WebHosting\
- 3. Then type: Get-ChildItem | Format-Table Subject, FriendlyName, Thumbprint -AutoSize
- 4. Then you should get a reply with one or more certificates. Copy the Subject information subdomain.domain.com
- 5. Go to AdmiTal and choose, System->Gateway->New binding
- 6. Choose SIP and TCP, Port 5061, enter the correct IP and under *Certifikat* paste the Subject information and set *Store* to WebHosting.
- 7. Then you also need to add traffic files to open up for traffic.
- 8. Subject should in the example say testbench.datatal.se

Z Administrator: Windows PowerShell —				×
PS Cert:\LocalMachine\WebHosting\>				^
Subject	FriendlyName	Thumbprint		
CN=testbench.datatal.se	testbench.datatal.se 2018-10-8 9:00:15	438908		
PS Cert:\LocalMachine\We	ebHosting\> _			

Recommended settings

MANDATORY	PROTOCOL	TRANSPORT	PORT	DESCRIPTION
YES	SIP	UDP	5060	SIP trafic over UDP on standard port
YES	SIP	ТСР	5060	SIP trafic over TCP on standard port
YES	CSTA	X227	27540	CSTA, for monitoring and controlling extensions in GW
YES	RTP	UDP	40100-40900	Audio streams use these ports, must be UDP
NO	STUN	UDP	3478	Used for terminals that are external and want to look up their external IP
NO	SIP	ТСР	5061	Activate TLS as above

Traffic filters

Traffic filter is intended as a simple application firewall, Datatal Gateway will inspect all requests and approve them according to the filter. This can be set per "binding" but should not be used on RTP.

You enter the rules directly into a text field. Below are some keywords and examples of expressions. It works like a regular firewall i.e. it goes from top to bottom and if an expression is true, it will be performed. Therefore, it is important in which order the expressions are entered.

First of all, you set the default behavior. Either Allow/Drop/Deny, if nothing is specified it will be Drop; Gateway drops the request and the sender gets no response.

Exemple

Default-action drop

src allow 192.168.1.0/24

Above expression allows all IP addresses in the range 192.168.1.0-255. No matter transport or port.

This is an example only allowing UDP on port 5060

Default-action drop

src allow 192.168.1.0/24 5060 UDP

The instruction is simply added after the previous instruction. You can also write FQDN or DNSRV to not have to update a supplier's IP addresses yourself. This is then done automatically against the DNS server.

You can also approve a specific User-Agent header. For example, if you want to make sure that customers can connect even if they come from an unknown IP

Default-action drop src allow 192.168.1.0/24 5060 UDP hdr in allow sip User-Agent: Snom*

Here, both internal IP's and anyone coming from a Snom phone that signaling User-Agent is allowed

The filter can be divided into several parts, first described what the filter should look for. Approved are

Source

src – Source, source IP/DNSNAME

dst – Destination, if you have entered a src you do not need to specify a dst when it is implicitly created such a filter

hdr - Header, searches for a SIP header with this content

Actions

Allow – Allows traffic

Drop – Drops incoming package without respons

Deny – Sends response back to sender, can add a custom header deny (Not wanted here)

Criteria

IP- Either an IPv4 or an IPv6 address. The address can also be specified with a mask to point out several IPs, for exemple *192.168.15.0/24* or *192.168.0.0/16* or *2a01:650:28:5::/112*

DNS- You can also specify an FQDN or DNSSRV record to more dynamically specify who can connect. Exemple _*sip._udp.sip-corporate.tele2.se* or *sip-corporate.tele2.se*

There are two names that are reserved. *anyipv4* and *anyipv6* can be used to open or close the entire address type

Port- Which port the receiver is trying to connect to

Transport- Which transport protocol should be allowed

Below are a few examples;

1. Opens to receive traffic "internally" and from Tele2s SIP servers

default-action drop

src allow 192.168.0.0/16 5060 UDP

src allow _sip._udp.sip-corporate.tele2.se

2. Opens for all IPv4 addresses on 5060 UDP default-action drop src allow anyipv4 5060 UDP

Trunks

In AdmiTal->Gateway->Trunkar you find configuration for trunks.

A trunk is a connection that contains information to an external system, such as a SIP operator or PBX. When a trunk is created and linked with routes, even related routes will appear under trunks.

Exemple in AdmiTal

SETTING	DESCRIPTION
NAME	The name of the trunk
DESCRIPTION	Describing the trunk, only used for administration
SIP	
SIP DESTINATION	The SIP destination, i.e. from and to which IP / DNS the call is to be received or sent to. This must be a URI. If the call goes to a SIP trunk enter Standard = SIP:[IPaddress/FQDN] Alt port = SIP:[IPaddress/FQDN]:port Change of protocol = SIP:[IPaddress/FQDN];transport=TCP Secure connection = SIP:[IPaddress/FQDN]:5061;transport=TLS IPV6 = sip:[fe80::dc21:5ee9:17d8:3bba] Custom SIP header = SIP:[IPaddress/FQDN];transport=TCP?X-Customheader=Cost01
USERNAME	Username for authentication in the system
PASSWORD	Password used to log in to the system
	When all three fields are filled in and saved, you have to press "change?" to edit them. Before that, none of the fields are editable
COUNTRY CODE	The country code that should be default for this trunk, makes the E.164 number formatting correct for the operators
INTEGRATIONS PROFILE	Here you choose which operator this trunk should connect to. Some operators will require showing ID or similar, these input fields will be displayed when selecting the respective integration.
DEDICATED DYNAMIC FIELD	Used primarily for the TEAMS connection, when the dynamic field is set as a Gateway device, Gateway will search this trunk for the device.
ADDRESS OF RECORD	A container for if you want to monitor the trunk itself
CHECKBOXES	
AUTOMATIC AUTHENTICATION	No challenge is made against incoming calls. If you want authentication to take place on incoming calls, you should let this be unchecked. Add a user in Flexi and enter the login details.

Nodes/CSTA3

In AdmiTal under System->Admin->Noder you find configuration for nodes

Nodes is a place where Flexi is configured to connect to Gateway, it is possible to configure that Gateway, for example, is run on another server. Flexi connects to Gateway via CSTA3.

In order for Flexi to be able to connect to the Gateway, it must have an account. Add a user to a company. It is the user's login information to be used.

In the current situation, this account will have access to all companies in systems, this will change in the future

Exemple in AdmiTal

SETTING	DESCRPTION	
NAME	The name of the node	
IP ADDRESS	IP to where Gateway has a "binding" for CSTA3 via X227	
РВХ ТҮРЕ	Different CSTA3 variants to connect to Choose - CSTA3 XML TCP ACSE	
ACTIVATE	To set this node as active or not, that it should try to connect	
USERNAME	The name of the account described above is entered here	
PASSEORD	The accounts password is entered here	
SIP DESTINATION	If WonderPhone should be able to register, set this to YES	
USE DATATAL GATEWAY	Check this to indicate that this is a Datatal Gateway and to enable the expansions in the CSTA3 protocol for Datatal CSTA3 service.	

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Alias

There is sometimes a need to make callable aliases for users. Think of an alias in Datatal Gateway as a DNS alias.

An alias can be shared by several users and the one who first gives a response/busy takes over the call. Like very simple groups.

Another scenario may be that you have very long extension numbers and you do not want to dial them internally. One might have 253017 as extension, and if you put 17 as an alias, then it is callable by everyone in one's company.

Alias is created automatically when a dynamic field is created and checked as "Alias". This field can then be updated, for example, from the AD connection, or by simply changing in the users settings directly. As a result, you can call non-numeric numbers, Datatal Gateway supports this.

Recommended security settings

Datatal Gateway is a SIP proxy and with that there is always an interest in hacking and intrusion. It is very important to think about this.

Here are some measures that should be applied

- Add certificates on all web pages, for example use Let's Encrypt. Read the wizard to enable Let's Encrypt on the Flexi server
- Windows update, Microsoft releases security patches all the time
- Back up the system reguraly
- Limit in the IIS who gets access to AdmiTal, read more about this in our "Guide for Secure Flexi". It also contains other safety aspects that should be taken into consideration
- Username and password; use them as much as possible instead of extension and PIN. All interfaces (except call to voicemail) support logging in with user name and password
- Traffic filter, go through them extra carefully. See above for good examples
- Firewall, there should be a firewall between the Flexi server and the Internet

Country codes

Gateway can restrict incoming and outgoing traffic per country. Thus, it is possible to limit whether to receive calls from or to call a particular country.

This is administered under Gateway->Landskoder. Check the countries you want the company to have access to (there are "shortcuts" for selecting the entire Europe or North America at the far right).

By default, the system will only support calling within the country for which the external trunk has been configured.

See examples here

Access control (TODO)

To be considered as the IP/IP range that gets access to Datatal Gateway. Facilitates getting a safer environment where Datatal Gateway should not receive calls from certain IPs. Corresponds to IP restrictions in Internet Information Services (IIS)

DEVELOPMENT OF THIS IS ONGOING.

External registrations (TODO)

This function is used so Datatal Gateway can register to an external system. Can be used to register to an operator or as an extension in another PBX.

DEVELOPMENT OF THIS IS ONGOING.

Microsoft Direct Routing (Teams connection)

As a step in the development of Datatal Gateway Datatal has implemented support for users to be able to use their Teams application as a softphone or VOIP app in their mobile. When a user makes a call from their Teams application to an external number or internal extension, they will be set as busy in Gateway.

Preparations

- 1. Office 365 Enterprise E3 or E5 assigned to the user
- 2. Microsoft Telephony system license assigned to the user
- 3. AudioCodes Session Border Controller with Teams license
- 4. AudioCodes configurated with valid certificate
- 5. Datatal Gateway user with Gateway User Professional license (namn på licens ej spikat)
- 6. Firewall settings
- 7. Administor rights on the customers Office 365-tenant, for configuration.

For information on how to configure Microsoft Teams and Audiocodes, read this article: Here

Limitations

- CTI functions like answer or make call do not work. Others such as blind transfer work. Transfer through the Teams application itself works well, both monitored and blind. It is not recommended that users who have Teams as softphone run the Flexi Operator application since it is very dependent on the answer/make call functionality
- Calls within Teams, between 2 users and when the call does not leave Microsoft's cloud solution. These users will not be set as busy in the Datatal Gateway. Datatal will of course implement this when it becomes possible to do so. At the time of writing there is no technical possibility to do this.



Configuration in Flexi for Microsoft Teams connection

In the Flexi configuration, the user needs the same number as it has in Teams entered in a dynamic field which in turn is linked to a trunk that is set to the profile Teams.

Requirements

- 1. Users in Teams have a number according to E.164 formatting, for example +46498253017
- 2. The user has the Datatal Gateway Professional license assigned to them (namnet på licensen ej spikat)

Create dynamic field with Microsoft Direct Routing

- 1. Log in to AdmiTal with sysop rights
- 2. Go to System->Dynamiska fält
- 3. Create a new field named Teams
- 4. Set the following,
 - a. Flik Telefonnummer
 - b. Typ-Mobil
 - c. Gateway device typ Microsoft Direct Routing
- 5. In the tab *Flaggor*, to hide the field in the interfaces, check
 - a. Dolt för Telefonist/Användarweb (Hidden for Operator/User web)

Egenskaper ^	Egenskaper	
lidggol	Namn (Svenska):	TEAMS
	Namn (English):	TEAMS
	Namn (Norsk):	TEAMS
	Namn (Dansk):	TEAMS
	Namn (Finska):	TEAMS
	Flik:	Telefonnummer •
	Тур:	Mobil
	Gateway device typ	Microsoft Direct Routing 🔻
-	Sortering:	100
		Spara Avbryt Radera Verkställ

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Create a Microsoft Direct Routing Trunk

- 1. In AdmiTal web go to Gateway -> Trunkar -> Ny trunk
- 2. Enter
 - a. Name Microsoft Teams
 - b. SIP destination sip:<AudioCodesInternaFQDN>
 - c. Country code 46 (eller det land som användaren sitter i)
 - d. Integration profile Microsoft Direct Routing
 - e. Dedicated dynamic field **Teams** (the one created above)
 - f. Automatic authentication **check**

Redigera				
Företag:	Testbänken			
Namn:	Microsoft Teams			
Beskrivning:	Detta är trunken som är kopplad m SBC.	ot Audiocodes		
SIP destination:	sip:s -lan.datatal.se			
Användarnamn:				
Lösenord:				
Landskod:	46			
Integrations profil	Microsoft Direct Routing 🔻			
Dedikerat dynamiskt fält:	TEAMS •			
Address of record (AOR):				
☑Automatisk autentiserin	ng			
	Spara Avbryt Radera Tr	unk Verkställ		

Configure the user for Microsoft Direct Routing (Teams)

- 1. Go to Företag-> < the company that should use Teams>
- 2. Assign Gateway Användare Professional licenses to the company.
- 3. Go to Användare -> < the user that sholud have Teams>
- 4. Set license level Professional

Användare		Användare			
Login					
Telefon		Efternamn:	Kalström		
Länkar Röstbrevlåda		Förnamn:	Erik		
Bild Rutter WonderPhone		E-post:			
Övrigt		Anknytning:	3017	4 0	
Gateway Vidarekopplingar		Gateway licensnivå	Professional 🔻		
		Företag:	Datatal AB 🔹 🔻		
		Kalenderkoppling Dölj för användar Dölj för API	e		
	-	Schema:	[ingen] 🔹 😭		
	_	Text språk:	Svenska 🔻		
		Lokal admin:			
			Spara	Avbryt Rad	dera Verkställ

- 5. Go to the tab Telefon
- 6. In the field **Teams**, enter the users Teams phonenumber

Användare	Telefon		
Login Data			
Telefon	Accessnummer:	*Datatal acessnummer	
Länkar Röstbrevlåda	Alt. tele:	3017	
Bild Rutter	PSTN:		
Mobila enheter WonderPhone	TEST FÄLT:		
Övrigt Gateway	TEAMS:	+46498253017	
Vidarekopplingar			

7. Click save (Spara)

Try calling from the Teams client to a user in the Datatal Gateway.

Try calling the user's extension in Gateway, it should start calling in Teams.

Appendix 1 Exemples

Exemple match to

Gateway / Rutt / Redigera Redigera <u>INFO</u> Exempel Match till Namn Beskrivning Samtalstag Vikt 0 Prioritet 0 Utringningsordning 0 Utringningstid 0 Ruttens omfång organization Företaget AB • <u>Från</u> Från kontext ▼ - [inget] • [inget] Match från Ersätt från <u>Till</u> Till kontext [inget] ▼ - [inget] v Match till 0498253017 Ersätt till 3017 <u>Omstyrning</u> Omstyrning match Ersätt omstyrning <u>Övrigt</u> Privat Dold Avstängd 🗌 Oönskad Förbjuden Förgrening Testläge <u>Övrigt</u> Skapad: 2018-05-14 14:52:10.7445330 +02:00 Träffar: 0 Spara Avbryt Radera Rutt Verkställ

Exemple match from Gateway / Rutt / Redigera

Redigera				
<u>INFO</u>				
Namn	Exempel Ma	tch från		
Beskrivning				
Samtalstag				
Vikt	0			
Prioritet	0			
Utringningsordning	0			
Utringningstid	0			
Ruttens omfång	organization	• •	Företaget AB	•
<u>Från</u>				
Från kontext	[inget]	γ.	[inget]	T
Match från	3017			
Ersätt från	0498253017	7		
Till				
Till kontext	[inget]	v -	[inget]	•
Match till				
Ersätt till				
<u>Omstyrning</u>				
Omstyrning match				
Ersätt omstyrning				
Övrigt				
Privat				
Dold				
Avstängd				
🗌 Oönskad				
🗌 Förbjuden				
Förgrening				
Testläge				
<u>Övrigt</u>				
Skapad:	2018-05-14	14:52:1	0.7445330 +02	2:00
Träffar:	0			
	Spara	Avbryt	Radera Rutt	Verkställ



Exemple context Gateway / Rutt / Redigera

Redigera				
<u>INFO</u>				
Namn	Exempel kont	text		
Beskrivning				
Samtalstag				
Vikt	0			
Prioritet	0			
Utringningsordning	0			
Utringningstid	0			
Ruttens omfång	organization	•	Företaget AB	¥
Från				
Från kontext	[inget]	▼ -	[inget]	•
Match från	3017			
Ersätt från	0498253017			
<u>Till</u>				
Till kontext	telephony-tru	ink 🔻 -	Extern trunk	•
Match till	070123456			
Ersätt till				
Omstyrning				
Omstyrning match				
Ersätt omstyrning				
Övrigt				
D Privat				
Forbjuden				
Forgrening				
Testläge				
<u>Övrigt</u>				
Skapad:	2018-05-14	14:52:10).7445330 +02	:00
Träffar:	0			
	Spara	Avbryt	Radera Rutt	Verkställ

Exemple outgoing Gateway / Rutt / Redigera

Redigera				
<u>INFO</u>				
Namn	Exempel ut	gående		
Beskrivning				
Samtalstag				
Vikt	0			
Prioritet	0			
Utringningsordning	0			
Utringningstid	0			
Ruttens omfång	organization	1 v -	Företaget AB	¥
<u>Från</u>				
Från kontext	[inget]	y -	[inget]	•
Match från	30%			
Ersätt från	04982530%	5		
Till kontoxt				
Thir Kontext	telephony-t	runк 🔻 -	Extern trunk	•
Match till	%			
Ersätt till				
Omstyrning				
Omstyrning match				
Ersätt omstyrning				
Övrigt				
Privat				
Avstängd				
<u>Övrigt</u>				
Skapad:	2018-05-14	14:52:10).7445330 +02:	00
Träffar:	0			
	Spara	Avbryt	Radera Rutt	Verkställ

Exemple incoming Gateway / Rutt / Redigera

Redigera	
INFO	
Namn	Exempel inkommande
Beskrivning	
Samtalstag	
Vikt	0
Prioritet	0
Utringningsordning	0
Utringningstid	0
Ruttens omfång	organization V - Företaget AB V
<u>Från</u>	
Från kontext	telephony-trunk 🔻 - Extern trunk 🔻
Match frăn	
Ersätt från	
Till	
Till kontext	[inget] V - [inget] V
Match till	040825200/
nateri tin	04982530%
Ersätt till	30%
Ersätt till	30%
Ersätt till Omstyrning Omstyrning match	30%
Ersätt till Omstyrning Omstyrning match Ersätt omstyrning	30%
Ersätt till Omstyrning match Ersätt omstyrning Övrigt	30%
Ersätt till Omstyrning match Ersätt omstyrning Övrigt Privat	30%
Ersätt till Omstyrning match Ersätt omstyrning Övrigt Privat Dold	30%
Ersätt till Omstyrning match Ersätt omstyrning Övrigt Privat Dold Avstängd	30%
Ersätt till Omstyrning match Ersätt omstyrning Övrigt Privat Dold Avstängd Oönskad	30%
Ersätt till Omstyrning match Ersätt omstyrning Övrigt Privat Dold Avstängd Oönskad Förbjuden	30%
Ersätt till Omstyrning match Ersätt omstyrning Omstyrning match Ersätt omstyrning Ovrigt Privat Dold Avstängd Oönskad Förbjuden Förgrening	30%
Ersätt till Omstyrning match Ersätt omstyrning Omstyrning match Ersätt omstyrning Privat Dold Avstängd Oönskad Förbjuden Förgrening Testläge	30%
Ersätt till Omstyrning match Ersätt omstyrning Omstyrning match Ersätt omstyrning Ovrigt Privat Dold Avstängd Oönskad Förbjuden Förgrening Testläge Övrigt	30%
Ersätt till Omstyrning match Ersätt omstyrning Omstyrning match Ersätt omstyrning Ovrigt Privat Dold Avstängd Oönskad Förbjuden Förgrening Testläge Övrigt Skapad:	2018-05-14 14:52:10.7445330 +02:00
Ersätt till Omstyrning match Ersätt omstyrning Omstyrning match Ersätt omstyrning Ovrigt Privat Dold Avstängd Oönskad Förbjuden Förgrening Förgrening Testläge Övrigt Skapad: Träffar:	2018-05-14 14:52:10.7445330 +02:00 0



Exemple Route scope 1 Gateway / Rutt / Redigera

Gateway / Rutt / Rec	ligera	Gateway / Rutt / Redigera		
Redigera		Redigera		
<u>INFO</u>		<u>INFO</u>		
Namn	Exempel Rutt omfång 1 Företag A	Namn	Exempel Rutt omfång 1 Företag B	
Beskrivning		Beskrivning		
Samtalstag		Samtalstag		
Vikt	0	Vikt	0	
Prioritet	0	Prioritet	0	
Utringningsordning	0	Utringningsordning	0	
Utringningstid	0	Utringningstid	0	
Ruttens omfång	organization V - Företaget AB V	Ruttens omfång	organization 🔻 - Test Företaget 🔻	
<u>Från</u>		Från		
Från kontext	[inget] V - [inget] V	Från kontext	[inget] V - [inget] V	
Match från	30%	Match från	40%	
Ersätt från	04982530%	Ersätt från	0812340%	
Till Till kontext Match till Ersätt till	telephony-trunk V - Extern trunk V	Till Till kontext Match till Ersätt till	telephony-trunk V - Extern trunk V	
Omstvrning		Omstyrning		
Omstyrning match		Omstyrning match		
Ersätt omstyrning		Ersätt omstyrning		
Övrigt Privat Dold Avstängd Oönskad Förbjuden Förgrening Testläge		Övrigt Privat Dold Avstängd Oönskad Förbjuden Förgrening Testläge		
<u>Övrigt</u> Skapad: Träffar:	2018-05-14 14:52:10.7445330 +02:00 0	<u>Övrigt</u> Skapad: Träffar:	2018-05-14 15:24:53.8944554 +02:00 0	
	Spara Avbryt Radera Rutt Verkställ		Spara Avbryt Radera Rutt Verkställ	

Exemple Route scope 2 Gateway / Rutt / Redigera

Gateway / Rutt / Red	ligera				Gateway / Rutt / Redigera			
Redigera					Redigera			
<u>INFO</u>					<u>INFO</u>			
Namn	Exempel Rutt	omfång	2 UTGÅENDE		Namn	Ändra 08 serien		
Beskrivning					Beskrivning			
Samtalstag					Samtalstag			
Vikt	50				Vikt	45		
Prioritet	0				Prioritet	0		
Utringningsordning	0				Utringningsordning	0		
Utringningstid	0				Utringningstid	0		
Ruttens omfång	organization	•	Företaget AB	•	Ruttens omfång	telephony-trunk	 Extern trunk 	•
<u>Från</u>					<u>Från</u>			
Från kontext	[inget]	y -	[inget]	T	Från kontext	[inget]	▼ - [inget]	T
Match från					Match från	1%		
Ersätt från					Ersätt från	081288110%		
<u>Till</u>					<u></u>			
Till kontext	telephony-tru	nk 🔻 -	Extern trunk	•	Till kontext	[inget]	▼ - [inget]	•
Match till	%				Match till			
Ersätt till					Ersätt till			
<u>Omstyrning</u>					<u>Omstyrning</u>			
Omstyrning match					Omstyrning match			
Ersätt omstyrning					Ersätt omstyrning			
<u>Övrigt</u>					<u>Övrigt</u>			
Privat					Privat			
Dold					Dold			
Avstängd					Avstängd			
🔲 Oönskad					Oönskad			
Förbjuden					Förbjuden			
Förgrening					☐ Förarenina			
Testläge					Testläge			
<u>Övrigt</u>					<u>Övrigt</u>			
Skapad:	2018-05-14 1	4:52:10	0.7445330 +02:	.00	Skapad:	2018-05-14 15:3	4:34.9374000 +02	:00
Träffar:	0				Träffar:	0		
	Spara	Avbryt	Radera Rutt	Verkställ		Spara Avbr	ryt Radera Rutt	Verkställ

Gateway / Rutt / Redigera

Dedigora				
Redigera				
Nerro	Tada 2000			
Namn	Andra 3000	serien		
Beskrivning				
Samtalstag				
Vikt	0			
Prioritet	0			
Utringningsordning	0			
Utringpingstid	0			
Ruttens omfäng	telephony-t	runk 🔻 -	Extern trunk	•
Från				
Från kontext	[inget]	.	[inget]	-
	[inget]	•	[iliger]	
Match fran	30%			
Ersätt från	04982530%	b		
Till				
Till kontext	[inget]	▼ -	[inget]	•
Match till				
Frsätt till				
<u>Omstyrning</u>				
Omstyrning match				
Ersatt omstyrning				
Övrigt				
Privat				
Dold				
Avstängd				
Oönskad				
Förbjuden				
Förgrening				
Testläge				
<u>Övrigt</u>				
Skapad:	2018-05-14	15:39:43	.4158145 +02	2:00
Träffar:	0			
			Pada Pati	Ma 1 1991
	Spara	Avbryt	Radera Rutt	Verkställ

Exemple Weight

Gateway /	Rutt /	Redigera
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Redigera		Redigera	
INFO		INFO	
Namn	UTGÅENDE Norsk	Namn	UTGÅENDE Dansk
Beskrivning		Beskrivning	
Samtalstag		Samtalstag	
Vikt	60	Vikt	60
Prioritet	0	Prioritet	0
Utringningsordning	0	Utringningsordning	0
Utringningstid	0	Utringningstid	0
Ruttens omfång	organization V - Företaget AB V	Ruttens omfång	organization V - Företaget AB V
Från		Från	
Från kontext	[inget] V - [inget] V	Från kontext	[inget] V - [inget] V
Match från	30%	Match från	30%
Ersätt från	04982530%	Ersätt från	04982530%
rill		Till	
Till kontext	telephony-trunk 🔻 - Norsk extern trunł 🔻	Till kontext	telephony-trunk 🔻 - Dansk extern trun 🔻
Match till	0047%	Match till	0045%
Ersätt till		Ersätt till	
<u>Omstyrning</u>		<u>Omstyrning</u>	
Omstyrning match		Omstyrning match	
Ersätt omstyrning		Ersätt omstyrning	
Diright Privat Dold Avstängd Oönskad Förbjuden Förgrening Testläge		Övrigt Privat Dold Avstängd Oönskad Förbjuden Förgrening Testläge	
Skapad: Träffar:	2018-05-14 15:43:22.1052179 +02:00 0	Skapad: Träffar:	2018-05-14 15:43:22.1052179 +02:00 0
	Spara Avbryt Radera Rutt Verkställ		Spara Avbryt Radera Rutt Verkställ

Gateway / Rutt / Redigera

Gateway / Rutt / Redigera

Redigera				
<u>INFO</u>				
Namn	UTGÅENDE			
Beskrivning				
Deskriving				
Samtalstag				
Vikt	50			
Prioritet	0			
Utringningsordning	0			
Utringningstid	0			
Ruttens omfång	organizatior	1 v -	Företaget AB	•
<u>Från</u>				
Från kontext	[inget]	y -	[inget]	•
Match från	30%			
Ersätt från	04982530%			
<u>Till</u>				
Till kontext	telephony-t	runk 🔻 -	Extern trunk	T
Match till	%			
Ersätt till				
<u>Omstyrning</u>				
Omstyrning match				
Ersätt omstyrning				
Övrigt				
Privat				
Dold				
Avstängd				
Oönskad				
Förbjuden				
Förgrening				
Testläge				
<u>Övrigt</u>				
Skapad:	2018-05-14	15:43:22	2.1052179 +02:	:00
Träffar:	0			
	Spara	Avbryt	Radera Rutt	Verkställ

Exemple Diversion

Redigera	
<u>INFO</u>	
Namn	Omstyrning
Beskrivning	
Samtalstag	
Vikt	25
Prioritet	0
Utringningsordning	0
Utringningstid	0
Ruttens omfång	telephony-trunk 🔻 - Extern trunk 🔻
<u>Från</u>	
Från kontext	[inget] V - [inget] V
Match från	
Ersätt från	
т:Ш	
<u></u>	
Till Kontext	[inget] V - [inget] V
Match till	
For State all	
<u>Omstyrning</u>	
Omstyrning match	30%
Ersätt omstyrning	04982530%
<u>Övrigt</u>	
Privat	
Dold	
Avstängd	
Oönskad	
Eörbiuden	
Forgrening	
U Testläge	
<u>Övrigt</u>	
Skapad:	2018-05-15 09:50:33.1008986 +02:00
Träffar:	0
	Spara Avbryt Radera Rutt Verkställ

Exemple "Binding" overview

Aktiverad	Protokoll	Transport	Nätverkskort	Lokal ip	Lokal port start	Lokal port sista	Status kod	Status text
Х	SIP	UDP		192.168.65.150	5060	0		
Х	SIP	ТСР		192.168.65.150	5060	0		
Х	CSTA	X227		192.168.65.150	27540	0		2 sockets
Х	SIP	UDP		2a01:650:28:5::65:150	5060	0		
Х	RTP	UDP		192.168.65.150	40000	40200		198 sockets
Х	SIP	тср		2a01:650:28:5::65:150	5060	0		

Exemple "Binding" configuration

Redigera	
Aktivera	
Beskrivning:	
STATUS TEXT:	
STATUS CODE:	1
machine id:	1
machine_ia.	
N. Staronk	
Natverk	
Transport:	UDP T
Protokoll:	SIP V
Lokal ip:	192.168.50.67
Lokal port start:	5060
Lokal port sista:	0
Nätverkskort:	
NAT region	
NAT regier:	192.168.0.0/24 = 192.168.50.67
	0.0.0/24 = 62.113.146.67
Trafikfilter:	default-action drop
	src allow sip. udp.sip-corporate.tele2.se
	src allow 192.168.0.0/16
	src allow 82.115.148.0/24
QOS nivă:	46
<u>Certifikat</u>	
Filsökväg:	1
Subject:	
Store:	[none]
Trunk	
Trunk:	
[inget]	T
	Corres Aubred Dadage Visibility
	Spara Avery Radera Verkstall

Exemple Trunk configuration Gateway / Trunk / Redigera

Redigera			
Företag:	Företaget AB		
Namn	TELE2		
Beskrivning:	Detta är trunken som går mot tele2		
SIP destination:	sip:sip-corporate.tele2.se		
Användarnamn:	Datatal1		
Lösenord:	Ändra?		
	,		
Address of record (AOR):			
Privat			
Automatisk autentiseri	ng		
	Spara Avbryt Radera Trunk Verkställ		

Exemple Node configuration System / Admin / Noder

Noder		
Namn:	Datatal Gateway	
IP-adress:	192.168.50.67	
PBX typ:	CSTA3 XML TCP ACSE	
Aktivera:	Ja 🔻	
Användarnamn:	csta3	
Lösenord:	•••••	Ändra?
SIP Destination:	Ja 🔻	
🗹 Använd Datata	Gateway	
	Spara Avbryt Radera Ver	rkställ

Exemple Group configuration Gateway / Grupper / Redigera

Redigera	
Företag:	Företaget AB
Namn:	Support
Beskrivning:	1
Gruppadress:	3030
Aktivt gruppläge:	Dagläge
Gruppläge vid öppet:	Dagläge 🔻
Gruppläge vid stängt:	Stängt •

Veckoschema

Veckodag	Öppnar	Lunch stänger	Lunch öppnar	Stänger
Måndag	08:00	12:00	13:00	17:00
Tisdag	08:00	12:00	13:00	17:00
Onsdag	08:00	12:00	13:00	17:00
Torsdag	08:00	12:00	13:00	17:00
Fredag	08:00	12:00	13:00	17:00
Lördag	:	:	:	:
Söndag	:	:	:	:

Medlemmar

Medlemmar: 6 - Inloggade: 3

Förnamn	Efternamn	Anknytning	Login	PRIO	Utringning	
Anders	Alyhr	3026	I	50	45	Radera
Erik	Kalström	3017		10	0	Radera
Magnus	Bäckström	3023	V	45	25	Radera
Patrik	Merk	3013	V	45	27	Radera
Petra	Målberg Svensson	3020		10	0	Radera
Tord	Bjuresten	3021		15	0	Radera

Tillgängliga medlemmar:

Exemple Group mode configuration

Gateway / Grupper / Gruppläge / Redigera

Redigera	
Ägare:	DATATAL
Namn:	Dagläge
Dingesätte	
Ringsatt:	Medlemsprioritet
	Dynamisk utökning
	Spela påringning vid framkoppling
	Parallel framkoppling vid flera köande
Tillgänglighetsläge:	Tillgänglig (öppen)
Overflow samtal	
overnow suntar	
Största kö storlek:	0
Max antal cokunder:	
Max antai sekunuer.	0
Destination vid overflow:	
Välkomethälening	
valkollistilaisilling	
Spela: Välkommen till Dat	tatal 🔹 Radera
Lägg till pause	Lägg till ljudfil
Kömeddelande	
Cooler Cooler	P. d. m.
Păringning 10s	▼ Kadera
Lägg till pause	Lägg till ljudfil
	Spara Avbryt Radera Verkställ

Exemple Country code configuration

flex				
<u>www.datatal.se</u> Innehâll	Gateway / I	andsk	roder	
Meddelanden	Landskod - Företaget AB			
Användare	Landskod	Tillåt	Land	
Call Center	1		Canada, United States	
Företag	20			
	27	П	South Africa	
Gateway	30	R	Greece	
Samtalsprofiler	31		Netherlands	
Landskoder 🕨	32		Belgium	
Grupper	33		France	
Rutt	34		Spain	
Kortkoder	36	Ø	Hungary	
Trupk	39	V	Italy	
munk	40	V	Romania	
Hänvisning	41	V	Switzerland	
Kö/koppla	43	V	Austria	
Ljud	44	V	United Kingdom	
	45	V	Denmark	
мепу	46		Sweden	
Röstbrevlåda	47		Norway, Svalbard and Jan Mayen	
Schema	48		Poland	
Startnunkt	49		Germany	
σταιτρατικτ	51		Peru	

Exemple Call profile configuration

Main number

Företag / Samtalsprofiler / Redigera

Redigera	
Ägare:	DATATAL
Namn:	Huvudnummer
Тур:	Telefonnummer 🔻
Telefonnummer:	0498253000
	Spara Avbryt Verkställ

Mobile



Redigera	
Ägare:	DATATAL
Namn:	Mobiltelefon
Тур:	Dynamiska fält 🔻
Dynamiska fäll	: Mobil 🔻
	Spara Avbryt Verkställ

Anonymous

Företag / Samtalsprofiler / Redigera

Redigera	
Ägare:	DATATAL
Namn:	Dolt nummer
Тур:	Telefonnummer 🔻
Telefonnummer	: anonymous
	Spara Avbryt Verkställ

